

The Adoption of Share-based Compensation for Executives in Large German Companies: The Americanisation of German Executive Pay?

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Abstract

In 1996, larger German corporations such as DaimlerChrysler, Deutsche Bank and Deutsche Telekom started to introduce US-style executive pay. In 1998, the German government decided to end the prohibition of US-style stock option schemes by amending the German Stock Corporation Act (AktG) to allow German corporations to issue straightforward stock option schemes freely, by either issuing new shares or repurchasing outstanding equity to meet obligations. Most large German corporations started to adopt some form of US-style executive pay and introduce stock option schemes. Financial commentators and economists espousing faith in the 'efficiency-enhancing' aspects of competition and globalisation have cited the adoption of Anglo-American performance-based management compensation as exemplary evidence of the alleged convergence of German corporate governance. Institutional theorists however counter-argue that despite the adoption of executive share option schemes, Germany's corporate governance systems have remained unchanged: relational governance persists to a great extent in Germany and important strategic decisions are still being decided collectively, with employees' welfare being served through the fifty per cent representation on the supervisory board of large firms.

Executive share options imply a philosophy of individualism, are essentially inegalitarian, and arguably allow executives to control their own reward packages by manipulating performance conditions, exercise prices and the timing of announcements. Thus, the implicit aim of US-style stock option schemes, maximising shareholder value, when analysed closely appears to be incompatible with the concept of the German firm as a social institution and its sense of *Gemeinschaft* created to enhance community welfare. Convergence on Anglo-American pay practices is not necessarily equivalent to a full-blown adaptation of a market driven corporate governance regime. Nonetheless, apparent convergence on US-style pay practices may represent some form of real convergence. It seems important, therefore to examine closely executive share option schemes recently implemented by large German corporations to determine whether they truly resemble US-style equity based management compensation.

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Chapter 1: Laying the Foundation

1.1 Introduction

The focus of this thesis is on a particular component of the executive reward packages recently introduced in large companies in Germany: stock options. In general terms, stock options are contracts, which give the executives the right to buy stocks at a specified exercise price after a specified term. Executive rewards are just one component of corporate governance, which can be defined as the means which important managerial decisions are controlled by the firm's non-managerial stakeholders (Buck and Tull 2000). The international 'varieties-of-capitalism' literature in political science (e.g. Hall and Gingerich 2001) broadly divides world governance systems into two types: market based corporate governance (e.g. in the USA and UK) and relational governance (e.g. in Germany). This thesis attempts to compare German executive stock options with executive stock options in the US and UK, investigating whether or not they induce a process of convergence, mainly assumed to mean the gradual spread of US-style governance. Alternatively, such 'convergence' could conceivably be on some hybrid market/relational pattern.

This chapter introduces and lays the foundations for the thesis, providing a brief outline of the main research question, proposition, and methodology. It is structured as follows: *Section 1.2* provides the research background, outlining the broad field of the study, which leads to the research question being asked. *Section 1.3* states the research proposition

that will be developed into a number of research propositions in a later chapter. *Section 1.4* describes the research methodology. *Section 1.5* briefly outlines the structure of the thesis.

1.2 The Research Background

Corporate governance structures in large German firms traditionally differ from those in the USA and the UK. In the USA and UK, the structure is ostensibly focused on ensuring that strategic decisions made by executives are aligned with the interests of shareholders, which is to maximise shareholder value. This is mainly achieved by uninvolved shareholders buying and selling their shares on a market, invoking the possibility of underperforming companies being taken over. However, doubts have been expressed about the efficiency of the takeover mechanism and the tendency for large firms to takeover profitable ones (Schneider Lénne 1992, O'Sullivan 1999). Therefore, other forms of governance have been relied upon, e.g. single-tier boards of directors are supposed to be exposed to shareholder influence, through again, doubts have been expressed, and many shareholders 'free-ride' without exercising their voices (Noteboom 1999). The ability of contractual arrangements in the form of executive rewards to align shareholders' interest with those of executives hence presents itself as crucial governance option.

In Germany, the control of large corporations is traditionally considered too important a function to be left only to the discretion of public shareholders (Monks and Minow 1995).

The German firm is widely regarded as a social institution and its sense of '*Gemeinschaft*' created to enhance community welfare (Charkham 1994). The main aim of the German corporation is thus not to solely maximise shareholder value but to strike a balance between the various stakeholders of the corporations and achieve sustainable, stable, continuous growth. German share markets are quite illiquid and banks and insurance companies are dominant stakeholders in a complex system of cross-shareholding, using their voice to influence the strategic decisions and performances of German companies. A system of industrial co-determination as enshrined in the Co-determination Act of 197 also results in employees being powerful stakeholders, where elected workers' representatives on a second-tier supervisory board have more far reaching information, consultation and veto rights on certain issues than those in the USA and UK where there is only one board of directors representing the shareholders' interests. Decisions made by senior German executives are thus not based upon maximisation of shareholder value but on the collective interests of the stakeholders.

Lately, however, the traditional German system of corporate governance has been commented to be converging on the US and UK type by financial commentators in the business press (e.g. Los Angeles Times, New York Times, Financial Times, Economist). New combinations of political and social forces are said to have introduced new forms of corporate governance oriented towards maximising shareholder value. Germany's finance minister, Hans Eichel has been quoted in the press as saying '*...German as a closed system...that is over...*' and '*...German firms have to be competitive or lose out...*' (Roth 2000). Similarly, a number of chief executives of large German corporations such as

Deutsche Bank AG and Veba AG have been quoted in the Wall Street Journal in separate occasions as saying that current trends have signalled the demise of Deutschland AG (Cheffins 2001, Roth 2000) and that German firms are now seeking to increase shareholder wealth. The head of securities sales and trading at Deutsche Bank quotes, *'...if you want equity capital, the biggest suppliers are English and American pension funds. If you want this equity, you have to adjust to their way of thinking. You have to swallow your pride and present yourself differently...'* (Financial Times 14 July 1993).

Some evidence relating to greater reliance on the stock market and a declining role for banks as important stakeholders lends credence to this view. For example, an increasing number of large German firms, which have already listed, are reported to be turning away from debt financing (and thus bank influence) and seeking out broader markets for their shares (Cheffins 2001, Melloan 2000). Germany's previously prosperous *Mittelstand* enterprises (mostly family owned, medium sized firms that account for over half of the country's industrial turnover) are expected to increasingly issue shares given their need for capital to fund expansion against the background of tax considerations and difficulties with succession (Cheffins 2001, Major 2000, Raghavan and Steinmetz 2000, Fenby 2000, Andrews 2000, Economist 1995). Previously, only a small number of German companies were quoted on the stock exchange and new equity issues were rarely used for financing purposes. The introduction of the *Neuer Markt* changed this, although the outlook for the *Neuer Markt* appears bleak these days due to scandals involving certain *Neuer Markt* firms and a low level of market capitalisation. Taken into account the *Neuer Markt* and

larger DAX quotations, total German stock market capitalisation had risen to 40 per cent of GDP by 1997, from 23 per cent in 1990 (Megginson 2000).

German corporations are also expected to become more shareholder-oriented because banks and insurance companies started to adopt business strategies during the late 1990s that focused on investment banking and specialist financial services rather than on the monitoring of the German industrial sector (Beyer 2002). The big banks have been quietly reducing their shareholdings for some time; the number of companies in which banks held at least ten per cent of the shares (directly or indirectly) fell from 129 in 197 to 86 in 1986 and the number on which they controlled a blocking minority of more than 25 per cent fell from 86 to 45 (Deeg 1991).

Banks and insurance companies have also simultaneously begun to relax the system of cross-holdings and interlocking directorates. Between 1992 and 1999, the share of bank representatives as chairmen of supervisory board fell from 44 to 23 per cent in forty large companies in Germany (Jackson and Höpner 2001). They now have slightly less control over proxy votes (Deeg 2001). The chief financial officer of Deutsche Bank declared publicly that his bank had not filled all the supervisory board positions offered by companies for some years. Deutsche Bank would in future provide even fewer directors and recommended that the practice of foreign pension fund managers who met with company management boards on a one to one basis are used instead (Jürgen et al. 2002).

Banks that are keen to rely on capital markets to raise cash know that their industrial and commercial holdings are unpopular with investors (Cheffins 2001) because the rate of return on investments is diminishing (Becker 2001, Deeg 2001), more could be achieved by focusing on underwriting, and the lucrative market for company buying and selling. A tax reform package abolishing the taxation on profits on the sale of share blocks passed by the German federal parliament in 2000, taking effect in 2002 encouraged banks to liquidate their investments in German firms. Prior to the tax reform, companies had to pay 50 per cent on capital gains obtained from selling equity stakes in other companies and they were greatly discouraged from unwinding shares that they held on to for so many years.

There is also the argument that Germany's business environment is moving towards the Anglo-American capitalist model due to the real threats posed by hostile takeovers following one successful hostile bid in 2000 (Cheffins 2001, Jürgen et al. 2002). Then, Vodafone Airtouch plc, a UK Mobile Telephone Company successfully acquired control of Mannesmann AG, a telecommunications giant, despite the latter's initial management objections. Compared to previous hostile takeover attempts in Germany, the banks affiliated to Mannesmann AG hesitated to side with the management of the target firm and labour, wider public opinion and politicians did not oppose the takeover. Hostile takeovers, involving a bidder making an offer to the shareholders of the target company to buy their equity with a view to installing new managers is an essential element of the Anglo-American approach to corporate governance.

Additionally, German corporations' policies towards employees have been observed to be changing. With rising labour costs becoming a serious competitive issue, German corporations, previously so concerned about providing secure employment for their workforce, have responded by shifting operations to other countries thereby restructuring themselves on ways that cause job losses (Cheffins 2001). Additionally, with manufacturing operations being relocated overseas, union power (Streeck 2001, Wehling 2000) and work councils (Lane 1999) in German companies are expected to weaken. For example, there has been a growing trend particularly in the auto industry to place the complete production of a given model, including the high value parts in a foreign location (Muller 1996, Pries 1997). Foreign direct investment (FDI) strategies, although still primarily oriented to market expansion, show a shift towards emphasis in lower production costs (Lane 1999).

To be sure, managerial attitudes to rationalisation and dismissal are hardening and managers who are adept at this have been well rewarded (Bloch 1998). For example, Daimler Benz upon incurring losses of almost 6 million Marks in 1995 closed down Fokker AEG concerns and announced the redundancy of 56,000 workers. As a consequence of this, the value of Daimler Benz shares increased by 26 per cent and the leader, Jürgen Schremp was heralded by publications such as *The Wall Street Journal* and *Business Week* as a revolutionary success and ground breaking organisational developer. In 1985, the German giants of Hoechst, Bayer, and BASF also reported record profits while at the same time announcing massive retrenchments (Bloch 1998). The managing director of Hoechst, Jürgen Dormann was even reported in *Die Zeit* (22 July 1986) as saying that

Hoescht was hardly German anymore, stressing that it considered the USA to be its major market and Kuwaiti shareholders having a greater shareholding than the Germans. In this respect, Article 14 of the German constitution stating that ownership should serve the common interest is now an unaffordable luxury (Bloch 1998).

In addition, a new and important kind of institutional investor seems to be emerging in Germany. Faced with demographic changes and increasing life expectancies, the German Bundestag passed legislation in 2001 to introduce supplementary, private, tax-supported old age provisions, which aimed to overcome the crisis of the German pension system (O'Sullivan 1999). Where the government supports the supplementary pensions with fixed amounts, it is expected that financial asset formation in institutional forms of savings (investment funds, insurance, pension funds) will be strongly stimulated (Deutsche Bank Research 2001). By 1999, there were 34 investment funds offering private pensions in Germany and 25 of these were owned and run by German financial institutions (Jürgen et al. 2002). Clearly, the position of pension funds as institutional investors is becoming stronger. Such funds would be mostly interested in the DAX 30 firms and guided by shareholder value principles. US pension funds with investments in Germany are also increasingly engaged in buying shares and putting pressure on company management to act on behalf of shareholder interests (The Conference Board 2000).

The combination of these developments indicates that large German corporations are faced with a changing corporate governance system, capable of further emphasising

shareholder value. Banks and insurance companies are seen to be taking active steps towards disengaging from cross-shareholding and interlocking directorates. Trade union powers are reduced with manufacturing being relocated overseas. German corporations which seek to tap equity markets abroad and locally have the onus to demonstrate that their shareholders matter, since international investors will not want to buy their shares unless they are given priority. In this light, the introduction of US-style stock options in large German corporations may now be regarded as one manifestation of new shareholder maximisation oriented activities.

While performance-linked executive pay in the form of stock options is relatively new in Germany, they are very popular in the USA and UK where investors typically urge companies to link managerial remuneration with share price performance (Heard 1995, Marino 1999, Black 2000, Kelly and Parker 1999, Flynn and Naik 2000, Waples 2000). Managers are argued to be more attentive to shareholders' interests if pay levels fluctuate in accordance with the returns being delivered to those owning equity (Cheffins 1999, Yablon and Hill 2000, Allen and Gale 2000). Stock options stakes arguably encourage managers to think like owners (Donkin 1999). Shareholders in the USA and UK have accepted dramatic increases in executive pay as long as good results for investors are being delivered (Heard 1995, Oldfield 2000, Gribben 1999). German companies thus stand to lose out in the competition for international capital or find their own domestic cost of capital increasing without implementing US-style performance linked pay. At the same time, German companies not implementing such remuneration would arguably also find it extremely difficult to attract and retain managerial staff due to the competitive global

market. In the case of SAP AG, Europe's largest software company and one of Germany's largest corporations, it was forced in 1999 to give in to the pressures of implementing US-style option plans, which it opposed after losing most of its US management team to competitors.

In 1996, large German corporations such as DaimlerChrysler, Deutsche Telekom, Hoechst, and SGL Carbon started to introduce US-style executive pay, by granting compensation in the form of bonds, which could be converted into shares (convertible bonds), or had warrants attached which granted the rights to acquire shares upon its exercise (warrant bonds) and stock appreciation rights (SARs). In 1998, the German government decided to end the prohibition of US-style stock option schemes and amended the German Stock Corporation Act (AktG) to allow German corporations to freely issue straightforward stock option schemes, by either issuing new shares or repurchasing outstanding equity to meet obligations. Following the passing of the AktG, most large German corporations started to adopt some form of US-style executive pay and introduce stock option schemes.

At the same time, it is obvious that convergence on Anglo-American pay practices is not necessarily equivalent to a full-blown adaptation of a market driven corporate governance regime. Many discrepancies between the governance of German and Anglo-American firms remain. Relational governance persists to a great extent in Germany and important strategic decisions are still being decided collectively, with employees' welfare being served through the fifty per cent representation on the supervisory board of large firms.

What is less obvious is whether apparent convergence on US and UK pay practices induces real convergence.

Theorists espousing faith in the efficiency-enhancing aspects of competition such as Hansmann and Kraakman (2002) seem to think so, citing this as exemplary evidence of the superiority of Anglo-American style governance and the alleged convergence of German corporate governance. On the other hand, Germany's corporate governance systems have in essence remained unchanged (Ruigrok and van Tulder 1995, Dörre 1996, Lane, 1999). The system of co-determination, which is regarded as the core of stakeholder corporate governance arguably still remains largely unaffected. Furthermore, the implicit aim of US-style stock option schemes, maximising shareholder value, when scrutinised closely, remains incompatible with the concept of the German firm as a social institution and its sense of *Gemeinschaft* created to enhance community welfare. Executive share options imply a philosophy of individualism, are essentially inegalitarian, and arguably allow executives to control their own reward packages by manipulating performance conditions, exercise prices and the timing of announcements.

While institutional theory, emphasising institutional inertia (e.g. North 1990) provides enough reasons to cast serious doubts on the idea that a German corporate governance system based on a stakeholder model and the influence of banks and employees on corporations is converging on Anglo-American style governance, there exists little research examining whether the adoption of US-style executive stock option schemes by larger German corporations does not induce convergence. It seems important, therefore

to investigate at a deeper level the innovation of German executive share option schemes and to develop research propositions that recognise the reality of institutional stability and institutional change and not just their surface appearance. This thesis thus proposes to examine closely the recently adopted German executive share option schemes and compare their structures to US/UK style executive stock options.

1.3 The Research Proposition

The main research question is therefore: *Does executive pay in the form of stock option schemes, for executives in German corporations really induce US-style corporate governance?*

The thesis proposes that while US-style incentives in the form of stock option schemes are apparently being adopted by German companies, their structure or effectiveness may not be identical to those in the USA or UK. It argues that a closer examination of German executive stock option schemes and a comparison of their structures to US-type schemes may reveal a diluted incentive instrument. Attempts to balance shareholders' interests with the interests of employees and other stakeholders may result in the German schemes reflecting modified, but continuing, relational governance.

In fact, where executive stock option schemes superficially resemble US-style scheme they may not serve to provide incentives for individual managers but merely exist to

appease international investors, since executive stock option schemes announcements have in general a positive influence on share price (Westphal and Zajac 1998). Where this is true, international investors attracted to invest in German companies implementing executive share option schemes may consequently find themselves investing in companies which might not only fail to align senior managers' interests to shareholders in terms of maximising shareholder value, but are also burdened with additional agency costs where shareholder value is redistributed in favour of managers (Eglau 1997, Bernhardt 1999).

Extending this assumption and based on the analysis of *Chapter 2* and *Chapter 3*, it is assumed that institutional theory with emphasis on culture, embeddedness, isomorphism, and inertia is appropriate for analysing German corporate governance. Thus, a general proposition is suggested: German executive share option schemes in their detail may be expected to be more Germanic than American in the sense of being more egalitarian and more demanding of executives in a number of important dimensions such as: awarding lower rewards in total, attaching quantitatively and qualitatively more performance conditions, and establishing longer qualification periods.

1.4 Research Methodology

Continued interest with executive pay issues has resulted in a number of studies comparing the level and structures of executive pay internationally. While the number of

international comparisons has grown, the quantity of research is still relatively low, given the level of interest in the area of executive pay (Murphy, 2000). This has been attributed in some part to the difficulties of obtaining and assembling the requisite data. For example, in the case of cross-country comparisons involving Germany, the USA, and the UK, data limitations arise because executive pay measurements vary according to national legal and accounting systems and micro-data relating to individual German companies have largely been unavailable (Conyon and Scwalbach 2000a).

Information disclosure relating to stock options in Germany has however improved recently. The trend for German companies to list on the New York Stock Exchange has resulted in a source of previously undisclosed information in the form of proxy statements filed with the American Securities Exchange Commission (SEC). German companies choosing to list themselves on the American market by issuing Level II and Level III American Depositary Receipts (ADRs) and Global Depositary Receipts (GDRs) are required to file proxy statements disclosing compensation including stock options awarded to their top five corporate executives. Additionally, where German companies have chosen to adopt US generally accounting principles (GAAP), their annual reports also contain more information on executive pay compared to those found using German HGB accounts. Notwithstanding this, the number of German firms listing themselves on the American stock market using US GAAP is few. Any international study involving German executive pay including stock option schemes still incur the problem of obtaining a large enough sample.

For this reason, this thesis rather than choosing a research design which will offer statistically representative samples and rigorous tests of hypotheses, proposes instead an alternative research approach consisting of case-studies, which will illustrate the developed propositions, and present findings that can lead to modifications/improvements to research propositions. Because case-studies use their own sampling logic, the question as to whether the sample is big enough to be statistically representative of a total population is not a major concern (Yin 1981). The consideration of using this approach is also important given that case-studies incorporate a method which purports to study real world conditions (Yin 1981), involving actual awards of stock options by corporations embedded in the German national institution and culture.

This thesis adopts the analytical strategy of pattern-matching. Pattern-matching involves comparing an empirically based pattern with a predicted one or with several alternative predictions (Trochim 1989, Yin 1994). If patterns are found to be the same, it can be tentatively concluded that German executive reward does induce US-style governance. That is, there is tentative indication that German relational governance is being subjected to a process of convergence taking the form of hybrid market/relational pattern. This finding would help develop theory and be useful for future research. For example, when sample size increase, significant tests may be performed on the differences between sample means and the refined research propositions can be more rigorously tested for rejection or support.

1.5 The Plan of the Thesis

Following this broad introduction, the chapters in this thesis are organised and presented in the following way. Every chapter, apart from this chapter and the concluding chapter, begins with an introduction that outlines the main areas of consideration, and a chapter summary that highlights concluding remarks and sets out the setting for the following chapter.

Chapter 2 aims to provide a better understanding of corporate governance and executive reward structures for the purpose of informing the chapters that follow. The first part of the chapter considers the definitions of corporate governance and provides an analysis of comparative corporate governance systems, involving the German and US/UK model. The second part of the chapter discusses the typical structure of executive compensation, focusing on stock options from a corporate governance perspective. It reviews agency theory and the optimal contracting approach in relation to the link existing between stock options and share price appreciation or pay and performance and considers managerial power theory as an alternative framework. The remainder of the chapter assesses the relative importance of stock option plans within executive compensation packages awarded in the USA, UK, and Germany.

The main objective of *Chapter 3* is to review the main debates surrounding corporate governance and convergence. This will provide a better understanding of the theoretical context for analysing possible governance convergence in Germany, particularly the reward packages of senior executives and the generation of research propositions about them. The chapter thus reviews ideas supporting corporate governance convergence,

which argues for the case of globalisation and efficiency as well as alternative literature, which maintains that path dependencies, contingencies, political influence, culture, and institution will ensure that governance systems will not converge. Where important legal and economic changes are observed to be taking place in Germany, the chapter reviews the evidence in the literature to find out whether there is a compelling case of convergence. Consequently, it considers the recent developments in neo-institutional theory which seeks to understand change by progressing beyond the ideas of inertia and concentrating on induced changes, and considers the speed of adjustment.

Chapter 4 develops a set of research propositions relating to the convergence of German executive pay, or replacement of relational influences by the influence of more open capital and labour markets. The chapter first summarises the findings of the literature review conducted in *Chapter 3* and *Chapter 4* and restates the research question, which was first introduced in *Chapter 1*. Then, it presents a theoretical framework leading to the generation of research propositions.

The aim of *Chapter 5* is to propose a research methodology or design which will best address the research propositions generated in *Chapter 4*, through a process of pattern-matching applied to multiple case-studies as a means of analysing the convergence of German executive pay. The chapter starts by explaining the philosophical approach of the research, and the reasons for choosing case-studies as a research methodology. It also presents a description of the research design of the thesis, focusing on the selection of sample and data collection.

Chapter 6 initialises the pattern-matching process by constructing the theory-pattern. Performing the pattern-matching procedure requires the completion of three distinct stages of constructing a theory-pattern, constructing a case-study pattern and matching both sets of patterns, and analysing whether the events in the case-study patterns correspond with the events in the theory-pattern. Where each of these steps is quite extensive, *Chapter 6* solely focuses on the first stage of constructing a theory-pattern leaving the remaining stages to be dealt with by *Chapter 7* and *Chapter 8*.

Building on the previous chapters, *Chapter 7* constructs the case-study patterns by collecting information relating to the selected companies described in *Chapter 5*. It constructs a database that records the details of individual German, US and UK schemes, and makes comparisons between both German and US schemes, and German and UK schemes.

Chapter 8 performs the third and final step of pattern-matching. It examines whether the variables contained in the theory-pattern have the same values as those in the case-study pattern. Where the values of the variables in the theory and case-study patterns are found to be the same, it can be tentatively concluded that German executive rewards are converging, i.e. there is a tentative indication that German relational governance is being subjected to a process of convergence on some hybrid market/relational pattern.

Finally, *Chapter 9* concludes the thesis by synthesising the major findings of the research, discussing their significance to academic debate and any implications it might have for

policy, and for remuneration practices in firms. Finally, the chapter considers the limitations for the research and highlights suggestions for future work.

Chapter 2: Definitions and Background

2.1 Introduction

Chapter 1 explained that the main aim of this thesis is to compare stock options recently introduced in large companies in Germany with executive stock options in the USA and UK; investigating whether they induce a process of gradual spread of US-style corporate governance. The purpose of this chapter is to provide a background for the understanding of *corporate governance* and *executive rewards*, to inform the chapters that follow.

The chapter is organised as follows. *Section 2.2* defines and explains corporate governance. *Section 2.3* provides some background on corporate governance systems, contrasting the traditional German model with the US and UK version. *Section 2.4* constructs the typical structure of executive pay in both models. *Section 2.5* analyses stock options from a corporate governance perspective, considering the link between stock options and share price appreciation. *Section 2.6* examines managerial power theory in relation to stock options. *Section 2.7* reviews executive pay structures, in particular executive stock option schemes in the USA, UK, and Germany. *Section 2.8* concludes the chapter.

2.2 Corporate Governance Defined

Since executive pay comprises one element of corporate governance that rewards and penalises managers, it is perhaps best to start by defining corporate governance. Different writers vary widely in how they define corporate governance. In its narrowest sense, the term describes, *'the means by which important decisions made by senior managers are controlled by the firm's shareholders'* (Shleifer and Vishny 1997) or *'ways of ensuring that corporate actions, assets, and agents are directed at achieving the corporate objectives established by the corporations' shareholders'* (Sternberg, 1998). At its most expansive, the term is stretched to include the entire network of relations involving the corporate sector and their consequences for society in general, *'the means by which important decisions are controlled by the firm's stakeholders'* (Buck and Tull, 2000).

An absence of consensus on the definition of corporate governance is symptomatic of the debate on the concept of the firm in the economy. For example, in countries such as the USA and UK, the firm is viewed as a capital market institution with a primary duty to its shareholders (Monks and Minow 1995). Under this form of capitalism, the firm is conceived to be about maximising returns for those who invest in it, i.e. an instrument for the creation of shareholder wealth. Shareholders being residual claimants thus exert substantial influence on managerial decisions while other parties such as employees, suppliers, customers, banks, and the government are usually dealt with on a bilateral market basis. The influence of shareholders is also strongly institutionalised with laws in the USA and UK strongly promoting the securities market by protecting equal access to information and protecting minority shareholders (Weimer and Pape 1995).

Alternatively, Germany's capitalist system predominantly features a stakeholder rather than a shareholder economy where maximising profits for shareholders has not been overriding priority (Hopt 1994). The German corporation is considered to be embedded in society, and since it profits from society, it has obligations towards it (Schneider-Lénne 1992). This commitment is rooted in Article 14(2) of the German constitution, which requires that property be used to serve the 'public weal' (Charkham 1995). In fact, the German language does not even have an expression for 'shareholder value'; the English phrase is used, emphasising its foreign origin and alien nature (Sternberg, 1998; Wahstyl 1996). The German firm is thus seen in terms of serving a wider social interest and as an institution with a continuing purpose and social obligation to employees and local community (Charkham 1994). The interests of others having long-term relationships with the firm and stakes in its long-term success are explicitly recognised. The main motive of shareholding is hence to strengthen long-term relationships and business interdependencies and the firm is often a part of cross-holding networks with long-term relationships with suppliers, employees, customers and the community.

Recognising that different countries uphold different definitions of the objective of the firm and therefore have different definitions of corporate governance, this thesis defines corporate governance in the USA and UK as the '*means by which important decisions made by senior managers are controlled by the firm's shareholders*' (Shleifer and Vishny, 1997). Conversely, when referring to corporate governance in Germany, the term construes corporate governance as the '*means by which important decisions are controlled by the firm's stakeholders*' (Buck and Tull, 2000). Alternatively, corporate

governance could also be more broadly defined more generally as *'the means used in corporation to establish order between parties whose interests may be in conflict'* (Williamson, 1996).

2.3 Corporate Governance Systems

Corporate governance systems refer to the country-specific framework of legal, institutional, and cultural factors that shape the patterns of influence that stakeholders (including shareholders) exert on managerial decision-making (Weimer and Pape 1999).

Corporate governance systems can be differentiated according to governance essential characteristics. While the inventory of the governance characteristics is not exhaustive, it includes characteristics such as: the prevailing concept of the firm, the board system, the salient stakeholders' ability to exert influence on managerial decision-making, the importance of stock markets in the national economy, an external market for corporate control, the ownership structure, and the extent to which executive compensation is dependent on corporate performance. (Scott 1985, De Jong 1989, Moerland 1995, Weimer 1995 and Weimer and Pape 1999).

Alternatively, corporate governance systems can also be categorised as having either a 'market-oriented' or a 'network-oriented' system of corporate governance (Weimer and Pape 1999, Moerland 1995). A 'market-oriented' system is characterised by an active market for corporate control which acts as a mechanism for independent shareholders to

influence managerial decision-making. By contrast, a 'network-oriented' system is characterised by a relationship-oriented structure where stakeholders are able to influence managers directly, based on the strength of their long-term inter-corporate relationships.

Similarly, corporate governance systems can also be differentiated from the theoretical perspective of 'voice' versus 'exit' (Hirschman 1984). Similar to a market-oriented system, 'exit', is associated with arms-length and spot contracting between autonomous rival firms. Agents, dissatisfied with performance, exit to the best alternative. Outside directors sitting next to executive directors on boards act more as experts than as instruments capable of influencing management (Moerland 1996). Dissatisfied owners sell their shares, and activities are coordinated either by price in the market or by hierarchy within firms. Ownership of firms is thus subject to public trade on the stock market. Conversely, 'voice', comparable to a network-oriented system is linked to partly rival and partly cooperative relations between firms connected in networks with more or less durable relations (Nooteboom 1999). Agents voice themselves when they are dissatisfied and try to overcome their dissatisfaction through ongoing interaction. Ownership is in part shielded from public trade through private ownership, cross-ownership between firms, ownership by banks, shares with restricted tradability, and protection against takeovers. Firm owners thus try to influence managerial action through non-executive directors.

Nooteboom (1999) proposes that the difference between the exit and voice systems is not restricted to the external organisation of ownership and relation between firms, but also

applies to internal organisation of relations between management and labour, and between central management and management of divisions. I.e. it is embedded in the country's institutional environment and arrangements (North and Thomas 1973). Whereas firms in the exit system are oriented towards more fragmented and short-term relations within the firm, with short-term labour contracts and autonomous sub-divisions, firms in the voice system are geared towards ongoing relations with the firm as well as between the firm, and its environment. There is more orientation towards teams, longer-term employment, and the sharing of competencies between divisions.

Observing the legal, institutional, and cultural characteristics of the rich, industrialised countries, researchers like Scott (1985), De Jong (1989), Moerland (1995), Weimer (1995) and Weimer and Pape (1999) find that the corporate governance systems in the USA and UK possess similar legal, institutional and cultural factors. For example, they share the same prevailing concept of the firm, the board system, the ability of salient stakeholders to exert influence on managerial decision-making, the importance of stock markets in the national economy, an external market for corporate control, the ownership structure, and the extent to which executive compensation is dependent on corporate performance. On the other hand, the German corporate governance system is characterised by the system of co-determination, the ties that corporations have with financial institutions, the dual shareholdings, and the nature of the interlocking directorates that is produced. The market for corporate control, which is prevalent in the Anglo-American system, is also not thought to act as a significant disciplining influence in Germany. Instead, stakeholders are able to influence managers more directly, based on

the strength of their long-term inter-corporate relationships. This is elaborated in more depth in the next sub-section.

2.3.1 The Anglo-American Corporate Governance System

In the USA and UK, the firm is viewed as an instrument for the creation of shareholder wealth hence the influence of shareholders is strongly institutionalised. In the USA, this protection is embodied in, among others, the Securities Exchange Act (1934), the Securities Investor Protection Act (1970), the Insider Trading Sanctions Act (1984), and the Private Securities Litigation Act (1995). In the UK, comparable legislations or codes of conduct comprise the Company Securities Act (1985 revised in 1989), the City Code on Takeovers and Mergers and the Financial Services Act (1986).

Executive and supervisory responsibilities of the board are also condensed in a one-tier board in the USA and UK. There are however executive and non-executive board members, appointed and dismissed by the general assembly of shareholders. Non-executive board members sit on the board, advising the inside directors or managers on major policy decisions while bearing the interests of shareholders in mind (Bleicher and Paul 1986). The effectiveness of an appointment of non-executive directors to act as effective monitors have been doubted by many (see Monks and Minow 1995, Milgrom and Roberts 1992, Mangel and Singh 1993 and Forbes and Watson 1993) with Jensen (1993) even querying the effectiveness of the board system as a control mechanism.

Stock markets also play an important role in the Anglo-American countries compared to other groups of countries. The active external market for corporate control (often referred to as the takeover market) has been frequently assumed to be the central, indirect discipline on Anglo-American managers. Given the deep and liquid markets in the USA and UK, the share price at any point in time is regarded as an unbiased estimate of the value of the equity of the firm under incumbent managers and the impact of any strategy they have introduced, providing a signal of management success. In the prototypical case of market of corporate control (Manne 1965), poor management performance in a widely held company will lead to specialist shareholders (who have no other role in the firm) repeatedly selling the stock, bringing down the stock price below the takeover deterring level. A potential acquirer believing that it can improve the performance of the firm either by removing the management, generating economies of scale or altering operations will make either a friendly bid or a hostile bid to acquire the equity of the firm or takeover the firm.

The most familiar takeover techniques are tender offers, proxy fights and leveraged buy-outs and these may result in merger. Notwithstanding these different techniques, a takeover's real ability to influence corporate conduct depends largely on the tendency and effectiveness of the new owners to replace board of directors and senior management (Sternberg, 1998). On the other hand, the mere threat of a takeover may serve to improve corporate governance. Managers and boards may be motivated to try harder to achieve shareholders' objectives upon realising that poor performance can cost them their jobs. Even the most ardent advocates of US/UK style capitalism must concede, however, that

the market for corporate control is deeply flawed. Large (unprofitable) firms tend to takeover smaller (unprofitable) ones, and it has not been proven that returns to shareholders in acquiring firms have improved after takeover (O'Sullivan, 1999). The practices of corporate raiders of taking over a company and stripping its assets to make a quick profit or the resultant high-yield instruments such as junk bonds are also unappealing (Schneider-Lénne 1992). Thus, instead of providing ongoing discipline, the market for corporate control is often more considered as a control of last resort (Jensen, 1986).

The difficulties associated with internal and market mechanisms put new pressure on other forms of governance in the USA and UK. One such form of governance is contractual arrangements like executive compensation contract. Holderness et al., (1999) propose a 'substitution hypothesis', whereby executive rewards, especially shares compensates for governance instruments which are weak and incapable of preventing executives from prioritising decisions relating to their job security or salary levels.

2.3.2 The German Corporate Governance System

The German corporation is not, as in Anglo-American countries, seen as a device to create shareholder value. Rather, it is considered as an autonomous economic entity constituting a coalition of various participants, such as shareholders, corporate management, employees, supplier of goods and services, suppliers of debt and customers, striving for the continuity of the firm as a whole (Moerland 1995). In Germany

thus, the interests of stakeholders in particular employees is formalised by the system of co-determination, which formalises this balance of interests, and both the shareholders and the employees are represented on the supervisory board. The system arose in the late nineteenth century from an attempt to overcome the contradiction between the reality of industrialisation and liberal ideas about the self-determination and the rights of individuals (Pistor 1998). Its legal origins date from 1891 when an amendment to the law on entrepreneurial activities (*Gewerbeordnung*) provided that workers' councils could be established on a voluntarily basis. The Weimar Constitution formally recognised co-determination but the principle was suppressed by the Nazis. It steadily re-emerged after the Second World War with the most important legislation governing it being the Co-determination Act (*Mitbestimmungsgesetz*) of 1976.

This Co-determination Act of 1976 requires that public and private limited companies with more than 2,000 employees must have a supervisory board (*Aufsichtsräte*) and a management executive committee (*Vorstand*). While the management board consists of executives of the company and is responsible for managing it, the supervisory board, which may not include executives, is responsible for appointing and supervising the management board. In one respect, the management board in Germany functions similarly to the unitary board in the Anglo-American system where it undertakes day-to-day management decisions.

On the other hand, it is somewhat more constrained, having to report to the supervisory board on issues three or four times a year on matters pertaining to the performance,

policy, and strategy of the corporation. The supervisory board is nominated by the *Vorstand* and is half elected by the employees (Schneider-Lénne 1992, Prowse 1995). Two thirds of the employee representatives are members of the company's staff, while one third are external, trade union representatives (Schneider-Lénne 1992). Representatives elected by shareholders are typically representatives of firms with close functional relations with the company, including suppliers, customers and bankers (Sternberg, 1998). Where the German law requires the supervisory board to include a stipulated number of employee representatives, corporations are prevented from pursuing decisions that lack employee support (Sternberg, 1998). For employees, the survival of the company, the protection of work places as well as their wage and non-wage benefits is naturally of primary interests (Hansmann 1996).

The market for corporate control, which is prevalent in the Anglo-American system, is not thought to act as a significant disciplining influence in Germany, although recent work is challenging that belief (Jenkinson and Ljunvist 2001). Germany's corporate governance can be described as being more relationship-oriented where stakeholders (banks, large corporate shareholders, creditors, and employees) are able to more directly influence managers, based on the strength of their long-term inter-corporate relationships. Operating within a *Gemeinschaft* (community or consensual style), stakeholders typically participate in the more important decisions by expressing themselves through representatives on the company's supervisory board instead of relying on the share prices or market mechanism to discipline errant managers. Indeed, while attention is paid to the share price as it determines future prospects of capital, it is relatively rare that the board

of managing directors is held responsible for the development of share prices (Schneider-Lénne 1992).

The ownership structure in Germany partly explains the absence of an active market of corporate control. The more concentrated the holding of the companies, the more mechanisms shareholders can use their board representatives to effectively influence managerial decision making in a direct manner, and the less acute the need for (or threat of) the takeover as an option of last resort to correct managerial decision making. The OECD (1997) estimates that the largest five shareholders in Germany hold on average 41 per cent of the outstanding shares compared to in the USA and UK, where the frequency of majority ownership yielded about 10 per cent in comparable samples.

Shareholder identity in Germany also helps to explain the absence of a serious market for corporate control. Non-financial corporations own 38.8 per cent of the shares of listed firms, and mutual cross-shareholdings between firms are permitted and commonplace. German corporations can take cross-shareholdings subject to a limitation of 25 per cent of the voting rights associated with those shareholdings, but irrespective of their size (Cheffins, 1990; 2000). By contrast, share ownership is widely dispersed in the USA and UK. Most large firms have publicly traded shares and do not have core shareholders that own a sufficiently large block of equity to exercise any sort of dominant influences. Furthermore, one third of corporate ownership in the Anglo-American model must result in a bid on all other shares (Pape and Weimer 1999).

Two other traditional features of the German corporate governance system differ significantly from the Anglo-American model. The first is the ties that German companies have with financial institutions, which are predominantly German banks. The second issue is the dual shareholdings and the nature of the interlocking directorate that is produced. Large German financial institutions are salient influential stakeholders. Apart from their role as suppliers of debts, they exercise influence through equity ownership owing around 16 per cent of outstanding German equity compared to the nominal accounts held by banks in the US or UK (Prowse 1995, Peck and Ruigrok 2000). In contrast to the USA, where the Glass-Steagall act (1933) and the Bank Holding Company Act (1956) forbid commercial banks to participate in the shareholders' capital of non-financial corporations on their own account, there are almost no restrictions for the German financial institutions to hold large blocks of shares of non-financial firm (Weimer and Pape 1999). Additionally, most directors sitting on supervisory boards come from other firms or particularly banks that have major stake in the firm. The supervisory board is not only used to exercise supervision over companies but also as a tool for business cooperation in the fields of production and finance (Jackson, 2001). A survey by Ziegler (1997) on 78 large German firms in 1927 provides an insight into the extent of entanglement of the German republic in earlier days: within the iron and steel industry, 28 per cent of the supervisory board members belonged to banks, and an additional 36 per cent represented industrial interests.

German banks also play a further role in corporate governance arena via proxy rights. Through a legal device called *Depotstimmrecht*, banks have the right to assemble the

voting rights conferred in them by keeping custody of bearer shares of individual shareholders who have surrendered their proxies. In 1992, banks cast on average more than 84 per cent of all votes present at the meeting of the 24 largest stock corporations with widely dispersed ownership (Baum, 1995). This influence rests on equity holdings, the votes cast by their subsidiary investment funds and above all their role as proxies for their clients who have deposited their shares with them.

2.4 Executive Compensation Structures

In the context of corporate governance, executive compensation is only one of the many factors considered to affect corporate governance which include: (i) importance of large stockholders, (ii) legal protection of shareholders, (iii) extent to which relevant laws are enforced, (iv) treatment of stakeholders such as labour, (v) reliance of debt finance, (vi) structure of the board of directors, and (vii) frequency of takeovers. While executive pay as a governance element may not be needed if other governance forms act efficiently, doubts have been raised about the performance of both German relational governance and US/UK based governance. Hence, the development of performance-dependent executive compensation, commonly in the form of share option plans, which arguably align the interest of managers and shareholders as well as multi-year bonus plans.

Executive compensation generally consists of a base salary, annual bonus, prerequisites, and long-term incentive plans such as stock options, with the value of stock options

dominating other sources of wealth for executives. In addition to this, executives also participate in broad based employee benefit plans and receive special benefits including life insurance and executive retirement plans. The definition of executive here relates to that of a main board director with a full-time contract of employment. When considering executive pay from a corporate governance perspective, it is the stock option that is viewed as the most important corporate governance instrument, where stock options represent attempts to realign the interests of executives and shareholders (Milgrom and Roberts 1992, Reitman 1993). Nevertheless, as the base salary and annual bonus are important components of the executive pay and are awarded alongside stock options in the executive compensation package, they will be discussed briefly here.

Base salaries are key components of executive compensation globally. They represent a fixed element, are usually determined independently of performance, based on industry salary surveys, and supplemented by detailed analyses of selected industry or market peers (Murphy 1999). Where these surveys typically adjust for company size, measured by company revenues, Baker, Jensen and Murphy (1988) suggest that the use of the surveys both formalise and reinforce the observed relation between compensation and company size, though size reflects past performance. Arguably, where salaries are relatively unresponsive to current company performance, they create conflict between executives and shareholders e.g. by imposing new risks on managers and thus encouraging relative risk aversion compared with the risk neutrality of shareholders with perfectly diversified portfolios (Bruce and Buck 1997). Lewellen et al. (1987) also observe that when remuneration is predominantly independent of corporate performance,

managers tend to be more risk averse, appraise decisions in shorter time frames, and produce diminishing risk.

Annual bonus plans relate to bonuses which are paid to executives upon achieving their performance targets. Sourcing data from the Tower Perrin Annual Incentive Plan Design Survey, Murphy (1999) shows that almost all companies base their bonuses on some measure of accounting profits such as revenue, net-income, pre-tax income, operating profit, or economic value added. Where such financial performance measures are not used, individual performance relating to pre-established objectives as well as subjective assessments is utilised. Thus, although annual bonus plans do provide incentives for executives to increase company profits to a certain extent, they can also induce executives to make decisions which might conflict with shareholders' objectives, as they pursue their own targets rather than shareholder returns directly.

In contrast to base salaries and bonus plans, long-term incentive plans in the form of stock options are more complex. In general terms, stock options are contracts which give the executive the right to buy stocks at a specified exercise price (usually the middle market price on the day of option award) after a specified term. They typically vest over time, are non-tradable, and are forfeited if the executives leave the firm before vesting. The value of the stock option varies according to the share price performance of the firm. For example, where the market price increases above the exercise price during the period in which the option is eligible for exercise, the value of the stock option will increase. Conversely, should the share price remain below the exercise price ('under water')

throughout the eligible exercise period, they will become worthless. The realised value received by executives from exercising options thus is the difference between current market price and exercise price, less transaction costs. Where long term incentive plans come in the form of 'conditional shares', they refer to conditional executive stock options with zero exercise prices (or gifts of shares) subject to conditions.

Unlike base salaries and annual bonus plans which offers no strong incentives for executives to act in the interest of owners, and take risks, stock option grants increase managerial risk-taking by rewarding share appreciation in full and imposing only limited penalties for falling share price. For example, sustained growth in the market price of a share over a number of years will provide considerable returns to the executives holding the options. On the contrary, should the share price remain below the exercise price ('under water') throughout the eligible exercise period, the executive enjoys no gain. The executive however experiences a sense of loss, if the options offered a notional gain that was lost when prices fell. Problems with options arise because share price movements may be caused by factors not relating to the company's, let alone the executive's performance. From the relatively undiversified executive's viewpoint, therefore, options carry risks that reduce their value. From a corporate governance perspective, it is this direct link between stock options and share appreciation that cause stock options to be regarded as a vital component of the executive pay. This is considered in more depth in the next section.

2.5 Executive Compensation and Corporate Governance

The link between executive compensation contracts and corporate governance fundamentally lies in the acceptance of agency theory. Agency theory is concerned with the relationship between the principals (shareholders) and agents (executives) and the determination of the optimal contract which would align the interests of shareholders with those of the executives. Agency problem arises with the recognition that executives can potentially pursue their own interests at the expense of shareholders (Kaplan 1982, Grossman and Hart 1982, Rosen 1992). Two alternative explanations exist for this: that it is caused by Modern Corporation's separation of ownership and control and that it occurs because of information asymmetry resulting from delegated authority. They are both discussed briefly here.

The first view, which attributes agency problem to the separation of ownership and control, goes back to the proposition by Berle and Means (1932). That is, when control is distinct from ownership and the dispersion of shareholders is far too great to enforce the maximisation of shareholder wealth, those in control may deploy assets in ways that benefit themselves rather than owners. Jensen and Meckling (1976) formalise these costs by demonstrating that when the owner-manager sells equity in the firms to outsiders and both parties are utility maximisers, the owner's interest will diverge from that of the new principals.

On the other hand, Coughlan and Schmidt (1985) and some others attribute agency problems to information asymmetry associated with delegated authority rather than of a divorce of ownership and control per se. When executives' actions are cheaply

observable, a risk-neutral shareholder could fully insure a risk-averse executive by paying a fixed salary resulting in optimal effort, and eliminate shirking by monitoring (Rosen 1992). The classical agency problem however arises because shareholders cannot cheaply monitor many executives' decisions that are essentially entrepreneurial, involving judgments and attitudes to risk that amount to 'hidden actions' (Murphy, 1999).

Collective research (for example by Mirrlees 1974, 1976, Holmstrom 1978, Grossman and Hart 1983) suggests that moral hazard problems can be overcome via the workings of the optimal-contracting model. The model basically suggests that compensation plans can be designed to align the interests of risk-averse self-interested executives with those of risk-neutral shareholders, and maximising shareholder's objective. The design of the optimal contract has to take into account the imposed constraints of the executives' optimising behaviour which consist of participation constraint and incentive compatibility constraint. That is the executive pay-off must be at least as great as those presented by outside opportunities; and given the incentive schedule, the executive should choose the best self-interested course of action. Holmstrom and Milgrom (1987) suggest that optimal contracting model also take into account the factors which have been identified as affecting the sensitivity of pay for performance contract. For instance, a one to one relation exists between executive actions and rewards when output is known with certainty and observed by shareholders, or if the executive is risk neutral, and he willingly assumes the risks embodied within the firm's assets. Optimal contract thus depends on reducing the risk aversion of the executives, increasing the certainty of firm value, and the function describing the cost of effort to the executive (Murphy 1999).

Relating this concept to stock options, stock options are considered optimal contracts because they involve trading-off both executives' risks and incentives, by virtue of there being a direct and mechanical link between executive rewards and share price appreciation. Conversely, the link between pay and performance via executive cash compensation and shareholder returns demonstrates only an implicit link between one-component pay and shareholder returns. However, tying executive pay to shareholder wealth directly is not without risks. For instance, increasing the sensitivity of executive pay to firm's performance will result in more risk being imposed on the executives where performance measures might also be affected by factors beyond the control of the executives, share price movements being noisy (Murphy 1999). The fundamental insight being that optimal compensation contract works in a way that mimics the statistical inference problem with the payout depending on the likelihood that the desired actions were in fact taken. Nevertheless, Holmstrom (1979), using the 'informativeness' principle, suggests that payouts should be based on stock-based measures not because shareholders desire higher stock prices but rather because realisations of stock based measures provide useful information in determining which actions the executives took.

Empirical studies however, have so far only provided weak support for the pay-performance link (Tosi et al. 2000). For example, a negative relationship has been established between the share option wealth of CEOs and the measures of firm risk (Wiseman et al. 2001). Options deep-in-the-money lose their risk inducing potential and converge on shares from the incentive property perspective (Tosi et al. 2000) and where the executive is heavily undiversified, options granted at-the-money may have a negative

effect on risk-taking (Hall and Murphy 2002). Empirical evidence has also yet to prove whether stock option contracts actually motivate executives. Such studies are difficult to conduct where stock returns have shareholder expectations embedded in them (Abowd and Kaplan 1999, Westphal and Zajac 1998), allowing the announcement effect to occur prior to the executive responding or ahead of the announcement of the plan. Additionally, while an innovation in the structure of incentives which is followed by improved performance might suggest a causal link, they might also reflect the exploitation of a scheme by executives in anticipation of improved performance (Bruce and Buck 1997, Tehranian and Waageleijn 1985). Event analyses (see Brickley et al. 1985, Warner 1985) which chart performance around the point of scheme inception are additionally frustrated by the announcement of the an intention to launch a scheme some time in advance where the event is not uniquely identifiable as relating to a specific point of time.

Given all of these factors thus, there remain the possibility and danger that the optimal contracting approach is not relevant to executive pay, if shareholders are ineffective in monitoring executive decisions. This possibility introduces a role for theories based on the executive's power to extract more than optimal pay or rents, from shareholders, subject to an outrage constraint (Bebchuk et al. 2002). Indeed, Bebchuk et al. (2002) argue that managerial power theory and the desire to camouflage rents perhaps explain significant characteristics of the stock option plans that have been problematic from the optimal contracting perspective. The next section examines managerial power theory in relation to stock options in more detail.

2.6 Executive Compensation and Managerial Power Theory

Bebchuk et al. (2002) argue that executive compensation can be explained by managerial opportunism and power over the board of directors. Like the optimal contracting approach, the managerial power approach recognises the principal-agent framework. Unlike the optimal contracting approach however, the managerial power approach argues that executive compensation are not optimal contracts but instead contain characteristics which allow executives to extract pay (rent) from their compensation. Underlying the hypotheses are the two beliefs: firstly, executives prefer more rather than less compensation and secondly, executives possess considerable power over the level and structure of their pay. While the optimal contract approach state that most pay decisions are made by independent boards in legitimate arm's length transactions, the managerial power approach recognises that executives can influence the independent board of directors in their awards. Executives exercise power over independent directors because they control the nomination process, maintain social relations with board members, and expect board support. Moreover, although executive compensation is set against the background of market-forces measures which offer corporate governance control, these forces are hardly strong enough to compel optimal contracting outcomes.

The managerial power model does not suggest however, that there exist no constraints which will prevent executives from extracting rent. Indeed, the model explicitly recognises that an important factor affecting executives' ability to increase their compensation is affected by how the compensation arrangements are perceived by outsiders or the amount of 'outrage' expressed in response to the proposed compensation. That is, where outrage is sufficiently widespread and intense, it will limit the extent of rent extracted by

the executives. 'Outrage costs' imposes constraints through various ways, via its effect on the board in the form of increasing social and reputation costs to directors, or by affecting one of the market measures highlighted in the corporate governance literature. For example, institutional investors might view such compensation as a signal that executives are insensitive to shareholder interests and be less willing to support the executives in a takeover bid. An important point to note here is that excessive compensation will not by itself impose significant outrage costs. Instead, outrage costs largely depend on the visibility of the rent extraction or extent to which the rent extraction can be observed.

Subsequently, opportunistic executives will prefer compensation packages which are camouflaged as optimal contracting, and will use their power to influence design. Indeed, the extensive use of compensation consultants and uniform compensation are regarded as means of justifying and legitimising excess pay, and minimising outrage. Hence also, the existence of sub-optimal incentives or option plans which does not even partly filter out 'noises' or stock price gains due to industry or general market trends such as the use of options without market-index, uniform exercise prices, re-priced options, freedom to unwind incentives and reload options. The managerial power approach hence does not question the desirability of using options to compensate executives, but rather highlights possible reasons why the designs and magnitudes of stock option schemes do not represent optimal contracting. The implication being of course, that a badly designed option scheme significantly reduces shareholder value as opposed to maximising it.

It is this possibility of unrestrained opportunism by executives in the design of their own reward packages, perhaps with the approval of 'friendly' non-executives and remuneration consultants that has caused so much concern in Germany and to some extent the UK, over the use of stock option schemes. This has led to a resistance to generous option schemes from supervisory boards and government regulators (in Germany) and from self-regulatory bodies in the UK such as the London Stock Exchange, the accountancy profession and association of institutional investors such as the British Insurance Association and the National Association of Pension Funds. It is this intriguing theoretical conflict between agency theory and power-based theories that add spice to research into US-style pay innovations like executive stock options in Germany. That is, the possibility that the mere establishment of an option scheme by large German corporations is not, by itself, sufficient to align the interests of principals and agents nor also induce convergence of German corporate governance.

2.7 Executive Compensation Structures in USA, UK and Germany

The executive share option as an element of executive remuneration owes its popularity over the last two decades to a number of factors. Fundamentally, it may be seen as one of several instruments of compensation which seek to address the conflict of interest embedded in the relationship between corporate owners and decision makers, principals and agents, by affecting a closer congruence of interests between the two groups. More pragmatically, the early uptake of executive stock option schemes in the USA and UK was

often associated with their tax efficiency relative to other means of rewards, through tax advantages in the USA and UK have been substantially weakened in recent years.

In the USA, executive stock options have been growing in importance since the 1980s. A study performed by Lambert et al. (1989) found that by 1986, 193 of the Fortune 200 companies had introduced executive stock option programmes. Studies of chief executive officer's (CEO) compensation in US Standard and Poor 500 Industrials (S&P 500) companies by Murphy (2002) have shown that, over the 1990s, the percentage of stock options of total chief executive officer's swelled from 27 per cent to 51 per cent. Another study of CEO pay components of Standard and Poor 500 companies (S&P 500) by Murphy (1999a) also revealed that as of the early 1990s, stock options had replaced base salaries as the single largest component of compensation in all US industry sectors with the exception of utilities sector. Conyon and Murphy (2000) examining CEO pay for almost 1,700 US publicly quoted companies too found a strong bias in favour of stock options. As of 1997, average salary only consisted of 29 per cent of overall CEO pay, compared to 63 per cent of variable pay. Of this variable pay, stock options were found to be the most important element, constituting 42 per cent.

In the UK, executive stock option schemes were sufficiently novel to be described as the 'newest executive game' in 1987 (Conyon and Murphy 2000). McKnight and Tomkins (1999) found that during the 1990s however, stock options became immensely popular with average remuneration in the form of share options increasing over 145 per cent, representing nearly 41 per cent of the overall pay package in 1995 compared to just less

than 26 per cent in 1993. Recent evidence from Towers Perrin (2002) has shown this figure increasing to 57 per cent in the year 2000.

The development of the executive stock option schemes in the UK, while lagging behind the experience in the USA by at least a decade, was also, in many important respects, similar to the US original (Bruce and Buck 1999). As in the USA, the strong growth of the development of executive stock option schemes was motivated by a similar blend of tax efficiency incentives and a more fundamental desire to realign potential conflicts of interest within the corporation. Also, it probably also reflected the desire of larger UK corporations not to be disadvantaged in international executive labour markets, where American firms had been the pioneers in developing such schemes (Murphy 199b). As stock option schemes became established among the larger British firms, so it seems likely that their continued uptake was sustained by fellowship behaviour.

Conspicuous differences in the development of executive pay in the USA and UK only occurred from 1995, following public outrage over the perception that top managers of privatised utilities were receiving excessive pay increases (Bruce and Buck 1999). Consequently, the Greenbury Commission responded by urging UK companies to replace stock options with share options and/or Long Term Incentive Plans (LTIPs) with 'more challenging performance criteria'. LTIPS – are essentially conditionally executive stock options with zero exercise prices subject to conditions. Post-1995 executive rewards in the UK have consequently emphasised LTIPs as a package component with LTIPs offering gifts of shares or cash conditional on the firm's performance relative to some

capital market average, to a sectoral average to some peer group of companies, or to some or all of these. In addition, international performance comparisons may be involved.

Unlike in the USA or UK, CEOs in Germany received no compensation in the form of stock options prior to 1998. The granting of executive stock option schemes by corporations was impossible until the German Stock Company Law (*Aktiengesetz*) was changed. Nonetheless, there existed performance related pay since 1986, which ultimately achieved similar end as the option schemes in the USA and UK, in the form of 'option bonds', 'warrant bonds', 'stock appreciation rights' (SARs) or 'phantom stocks' and 'convertible bonds' (Bernhardt 1999). Despite the existence of these instruments, German executive compensation packages prior to 1996, only contained a small variable portion (Bernhardt 1999) and were typically based on operative result and absolute figures such as annual profit, dividends, turnover and cash flow, or in direct relation to the company's performance like return on equity, return on investment, and return on assets (Becker 1990).

Indeed, studies conducted on German executive pay structure confirm that prior to 1996, performance related pay in general was 'largely a foreign concept' (Cheffins 2001). Studies of German and UK executive pay from 1960 to 1995 conducted by Conyon and Schwalbach (2000a) noted that the main difference in the structure of executive pay in Germany and UK was that German executives were not awarded stock options. Furthermore, after stripping long-term compensation out from the UK calculations, CEOs

in Germany and UK were found to have earned similar pay when firms chosen were of comparable size or related to comparable industry, sharing similar types of influences.

There exist a number of anecdotal reasons why performance related pay was missing in the German executive compensation package. Cheffins (2001) identifies three common ones. Firstly, prior to 1998, German companies wanting to issue stock options to their executives would have to submit a resolution to the shareholders and obtain a three quarter majority vote. Secondly, a German company did not have the incentive to do so where gains from options were not deductible for tax purposes, unlike in the USA (but similar to the UK). Thirdly, employees on supervisory boards able to directly influence the structure of pay acted as strong brake on options, opposing to any incentive plans which results in executive becoming more disposed towards shareholders. Indeed, Conyon and Schwalbach (2000a, 2000b) concluding that the main difference between German and UK executive pay rested in the structure of pay attributed the absence of German executive stock options to the latter reason, highlighting the fact that different corporate governance mechanisms existed in the UK and Germany. Clearly, executive compensation innovations designed to minimise the conflict of interest between shareholders and executives are not vital instruments to large German firms, traditionally associated with long-term, 'relational' investors and a '*Gemeinschaft*' of stakeholders with voice-based corporate governance.

As previously stated in Chapter 1, the situation in Germany has however changed. In 1996, larger German corporations such as DaimlerChrysler, Deutsche Bank and

Deutsche Telekom started introducing compensation in the form of US-style executive pay, by granting compensation in the form of convertible bonds, warrant bonds and SARs. In 1998, the German government also decided to formally end the prohibition of US-style stock option schemes and amended the German Stock Corporation Act (AktG) to freely allow German corporations to issue outright stock options. German tax laws were also changed to remove the disincentives for shares sales by long-term relational investors like banks, making shares of large firms more liquid, and a necessary condition for stock options as effective incentives. Since 1998 *Aktiengesetz*, most large German corporations have started introducing US-style stock option schemes, raising the question as to whether German corporate governance is converging.

2.8 Conclusions

The objective of this chapter was to provide a background to corporate governance and executive rewards for the analysis of executive rewards as a specific governance element in future chapters. Consequently, this chapter started with discussing the alternative definitions of corporate governance. The thesis adopts two alternative definitions of corporate governance which are system-specific. In the Anglo-American model, corporate governance refers to the means by which important decisions made by managers are controlled by firm's shareholders. In Germany, corporate governance is construed as the means by which important decisions are controlled by firm's non-managerial stakeholders.

The chapter then contrasted German and Anglo-American models of corporate governance, outlining corporate governance mechanisms used in both models in the process. Several significant corporate governance characteristics in Germany were identified. They include the establishment of the two-tiered board system enshrined in the Co-determination Act of 1976; the ties that German companies have with financial institutions and; the dual shareholdings and the nature of the interlocking directorates that are produced. In the USA and UK, although some direct monitoring is exercised by the shareholders through annual meetings, proxies and accounting reports and the best-known characteristic of the corporate governance system is the market for corporate control or the takeover market.

The chapter proceeded by discussing the typical structure of executive compensation. Generally, executive compensation consists of a base salary, annual bonus, prerequisites and long-term incentive plans including stock options. From a corporate governance viewpoint, it is the direct link between stock options and share price appreciation that causes stock options to be regarded as a vital component of the executive pay structure. That is by linking pay to performance, conflict or interest between shareholders and executives are addressed and are supposed to be minimised. Nevertheless, empirical studies have so far only provided weak support for this logic. Empirical evidence has also yet to prove whether stock option contracts usually motivate executives.

There remain the possibility and danger thus, that the managerial power theory is more relevant to executives instead of the optimal contracting approach. The managerial power

approach argues that executive compensation contain characteristics which allow executives to extract excess pay (rent) from their compensation. Hence, a badly designed option scheme significantly reduced shareholder value as opposed to maximising it. This intriguing theoretical conflict between agency theory and power-based theories gives rise to the possibility that the mere establishment of an option scheme by larger German corporation is not, of itself, sufficient to align the interests of principals and agents.

The chapter also assessed the relative importance of stock option plans within executive compensation packages awarded in the USA, UK and Germany. Results of surveys undertaken of executive pay structures in these countries revealed that while stock options are vital components of executive pay packages in the USA and UK, they remained non-existent in Germany up until the mid 1990s. Large German corporations started introducing compensation in the form of US-style executive pay in 1996 and it was only in 1998 when German government abolished the prohibition of US-style stock option schemes by amending the German Stock Corporation Act (AktG) that most large German corporations started introducing US-style stock option schemes. This raises the question as to whether the introduction of executive stock options in German corporation signifies the convergence of German corporate governance into US-style governance.

Seeking to answer this research question, this thesis continues with *Chapter 3* reviewing the main debates in the literature regarding *corporate governance* and *convergence* in order to provide a better understanding of the theoretical context for analysing governance and possible convergence.

Chapter 3: Corporate Governance and Convergence

3.1 Introduction

Chapter 2 provided a background for understanding corporate governance and observed that corporate governance patterns in the Anglo-American and German models have continued to differ. Within the corporate governance convergence literature, there are two standard positions on this. Established literature in neoclassical economics argues that although governance pattern currently differ, increased globalisation in product, labour and capital markets will force at least large-scale firms that trade internationally to adopt a common set of governance characteristics. There exist strong opposition to the idea of corporate governance systems converging particularly from the legal theorists, who counter argue that competition arising from globalisation cannot influence governance reforms. The reason for this being that governance structures, rather than simply being forms of 'technology', are infused with prevailing politics and culture, and shaped by institutions and history.

This chapter reviews both perspectives but focuses on the literature of non-convergence theories because it contains different strands of theories which are complementary, such as path dependency, institutions, political influence, isomorphism and culture in influencing the evolution of corporate governance and resisting competitive forces arising from globalisation. On the other hand, the convergence argument in the established economics literature focuses on the sole argument that increased globalisation in product, labour, and capital markets forcing large-scale firms that trade internationally to adopt a

common set of governance characteristics. In other words, the adoption of efficient governance is essential to product market survival (Jensen and Meckling, 1976). This will provide a better understanding of the theoretical context for analysing convergence in Germany, particularly in the form of reward packages of senior executives. These perspectives will then be used to generate research propositions about them in Chapter 4

The chapter is organised as follows. *Section 3.2* reviews convergence and counter-convergence arguments within the current literature. *Section 3.3* reviews the evidence for convergence or counter-convergence. *Section 3.4* considers an alternative proposal for convergence, distinguishing between 'formal convergence' from 'functional convergence'. *Section 3.5* provides a neo-institutional perspective on convergence. *Section 3.6* considers the speed for adjustment. *Section 3.7* concludes the chapter.

3.2 Convergence and Counter-convergence Arguments

The theory that corporate governance patterns are converging or will converge on either the Anglo-American model or some hybrid between the shareholder and stakeholder models is well established within the field of economics. Where most of these traditional theories stress the role of globalisation, it seems necessary to define globalisation before reviewing the arguments for convergence. Essentially, globalisation entails a lifting of barriers to the mobility of capital, products, and labour, leading to the intensification of competition for these factors across borders by firms and countries (Guillén 2000).

3.2.1 Convergence Theory

Efficiency Theory

Undoubtedly, one of the most commonly cited arguments for convergence is the much cited 'efficiency theory' propounded by economists such as Easterbrook and Fischel (1991), Demsetz (1983), and Hansmann and Kraakman (2002). According to this theory, the shareholder-centred model is considered the most efficient, and competition from globalisation in one country will drive countries and firms to adopt this 'best practice' form of corporate governance structure. This is because corporations that adopt a shareholder-oriented governance approach will enjoy access to capital at a lower cost, providing them with a competitive advantage over these non-adopting firms (Hansmann and Kraakman 2002). Firms following a shareholder value model will have competitive advantage in product markets because their governance structure allows them to adapt more rapidly to a changing environment (Khanna and Palepu 2001). Unencumbered by other stakeholder interests, such corporation may have superior capabilities in reorganising their management structures, aggressively entering new product markets, or more rapidly abandoning inefficient investments (Hansma and Kraakman 2002). Hence, firms and countries that continue to employ an inefficient system of corporate governance will be punished by global markets through falling profits and shareholder value and/or by an inability to raise new capital (Easterbrook and Fischel 1991, Demsetz 1983, Useem 1996, Rubach and Sebor 1998, Coffee 1999, Hansmann and Kraakman 2002). As a result, firms, factories, and businesses might suffer, or might migrate away from that country (Easterbrook and Fischel 1991, Demsetz 1983, Hansmann and Kraakman 2002).

The premise here is that corporate governance differs little from other forms of technology, similar to manufacturing techniques, an inventory management system, or an engineering economy of scale. Easterbrook and Fischel (1991) write, 'the corporation and its securities are products in financial markets to as great an extent as the sewing machines or other things the firms makes. Just as the founders of a firm have incentives to make the kinds of sewing machines people want to buy, they have incentives to create the kind of firm, governance structure, and securities the customers in capital markets want'. Advanced economies are thus predicted to display similar patterns of governance especially when the adoptions of efficient corporate governance systems are facilitated by easy flow of information about corporate technologies, cross-border investors and multinationals bringing with them familiarity with foreign practices (Orange and Renault 1998, Tagliabue 1998, Webb 1997) and national reports regularly featuring practices seen elsewhere and identify them as beneficial (Bebchuk and Roe 1998, Hansmaan and Kraakman 2002, Vitols 2001).

The question however arises as to why the arguments considers shareholder-centred model to be efficient and other forms of governance patterns inefficient. The answer is not generally stated in the literature. A persuasive rationale however does come from positive agency theory (Fama and Jensen 1983, Jensen and Meckling 1976) which reasons as follows: once agency costs are controlled through a governance mechanism, the dispersion of ownership is best, for it allows an efficient risk allocation. However, while this theory says that the spreading of property rights is a good thing, it does not really state that shareholder value is good in itself, which is what an argument for convergence to

Anglo-American model would need to encompass (Rebérioux 2002). The case for shareholder value starts by noting that as residual claimants, stockholders bear the risk in the corporation. Consequently, the corporation should run in their interest and formal control rights should be in their hand.

However, this line of reasoning works just as well for the stakeholder approach, as noted by Blair (1995). Indeed past literature debating the merits of governance systems, prior to the busting of the Japanese 'bubble economy', had predicted the stakeholder system as representing the future, where it supported lean manufacturing (Aoki and Patrick 1994), casting serious doubts on the superiority of the American model (Gerlach 1992, Kester 1996). Thus Bishop (1994) writing in the Economist magazine, admits that '...predicting trends in corporate governance is a tricky business. Five years ago the long-termism of the Japanese and Germans seemed the best course; and the turmoil caused by the hostile bids in American and Britain seemed the opposite. Now things look different'. Charkham (1995) also offers a detailed analysis of cross-national differences but leaves it up to the reader to decide which the 'best' model is.

Some political economists have also predicted that convergence will occur. For example, where international financial markets can move large sums of money out of countries, governance systems can be coerced to prioritise measures which will preserve the value of capital (Andrews 1994, Epstein 1996, Cerny 1996). In addition, countries accepting financial assistance from international organisations like the International Money Fund (IMF) and the World Bank have had to commit to fundamental reform of their corporate

governance system in the direction of the American model (See IMF 1999, Bratton and Cahery 1999).

3.2.2 Counter-Convergence Theory

Path Dependency

The view that corporate systems are likely to converge on a universally 'best-practice' is rejected by theorists such as Bebchuk and Roe (1998, 2000) who invoked the concept of path dependence based on traditional institutional theory. According to theory of path dependency, initial conditions, whether established by historical accident or political compromise, direct an economy down a particular path of development from which there is no easy return. Consequently, even though there might be powerful forces pressing towards the adoption of an 'efficient' system, the outcome might still appear inefficient. For example, governance emerging from the Glass-Steagall Act, which effectively divorced commercial and investment banking have resulted in a proliferation of local financial intermediaries which are too small and legally constrained to effectively monitor the US industry (Roe 1994). The Glass-Steagall Act was initially established by the US political tradition which was sceptical of concentrated financial power and concerned with making law which limited the activities of banks and specified tight, anti-trust constraints on collaborative arrangements between firms in the same industry.

Clearly, the most important implication of path dependency on corporate governance and convergence is that once events have been set in motion and historical forces have produced significant national variations in the structure and design of corporate governance systems, there may be no answer to the question of what incremental changes are most efficient (Coffee 1999). North (1990) writes that although complex systems of laws and regulations evolve in a path-dependent way and are resistant to change, radical change may still be possible during times of 'conquest or revolution'. Studies by Buck and Tull (2000) however show that during the 'conquest' of US military occupation (1945 – 1952), German governance remained resistant to convergence. Although the occupying forces were in a very strong position to reform corporate governance in Germany in their own image, governance reforms actually implemented owed a heavy debt to German history and culture, and many Allied proposals were either ignored or dropped as a result of the Cold War and market forces.

Institutions

The view that corporate systems are likely to converge due to efficiency considerations is also refuted by who believe in the institutional theory. Institutional theory originally evolved from the discipline of sociology, which states that different corporate governance systems enable firms and countries to excel at different kinds of activities in the global economy, and different governance mechanisms can perform equally well in different contingent environments. It is thus futile to attempt to identify the best practice or model in the abstract (Guillén 1994, Whitley 1992, 1999). Countries and their firms are institutionally

equipped to follow different competitive strategies in the global economy, and corporate governance is an institutional instrument facilitating specific competitive strategies (Bebchuk and Roe 1998, Buhner et al. 1998, Kester 1996, Kim and Hoskisson 1996, Lazonick and O'Sullivan 1996).

For example, many German, French, Japanese and American firms have managed to retain their competitive edge by following different strategies, which are closely intertwined with their corporate governance systems. Germany's educational and industrial institutions of dual apprenticeship system, management union cooperation, dual board corporate governance system, and traditions of hands on engineering have enabled companies to excel in high quality, engineering-intensive industries such as advanced machine tools, luxury automobiles, and specialty chemicals. The participation of labour in the supervisory boards of German corporation has also been a key mechanism compelling firms to look for smart ways of employing the skills of their expensive but sophisticated and productive workers (Hollingworth et al. 1994, Streeck 1991, 1995, Soskice, 1998). Also, Korea successfully exported mass-produced automobiles, consumer electronics, chemical and steel (until 2000, at least) though its indigenous pattern of social organisation and corporate governance underpinning the rise of large, capital-intensive and diversified conglomerates known as chaebol (Guillén 2000).

It follows therefore that systems which are deemed to be efficient in one context may not be considered to be efficient in another, especially if reforms are implemented on a piecemeal basis. A particular practice can only be efficient in any given context if is

compatible with another practice that is prevailing in that context. Indeed, the adoption of allegedly 'efficient' governance might even produce inconsistent evolutionary adaptations in differing economic environments (Gordon 1998). For example: an Anglo-American style of corporate governance adopted in a heavily leveraged German firm would not work well if corporate control was assigned to a board of directors only responsible to the shareholders. Perverse incentives would arise for the equity shareholders to pursue inefficient strategies that would transfer wealth from the creditors towards holders of equity. Clearly, optimal monitoring in these circumstances is contingent on the capital structure that the firms have in that particular economic environment.

Political Influence

Another counter-convergence theory is the opinion that corporate governance models and practices are influenced by political interests. Closely related to path-dependence theory, it argues that political forces of each stakeholder group have the power to shape and perhaps derail any radical change imposed (La Porta et al. 1999). Hence, it does not matter whether a more efficient regime of corporate governance could be demonstrated to exist; inertial political forces would still be sufficiently powerful to preserve the less efficient status quo (Millhaupt 1998, Gordon 1998). Zukin and DiMaggio (1990) define this as 'political embeddedness', where institutions and decisions are shaped by a struggle for power that involves economic actions and non-market institutions. For instance, systems in which banks are successful players in corporate governance are unlikely to evolve towards the market-based system if only because banking interests will be opposed

(O'Sullivan 1999). Millhaupt (1998) thus writes that regardless of whether a more efficient regime of corporate governance could be demonstrated to exist, inertial political forces would still be sufficiently powerful to preserve the status quo.

The study on the diffusion of corporate governance and organisational forms in general is full of detailed analysis of how domestic political contingencies affect outcomes. Commonly, domestic politics were found to mediate the relationship between external pressures and outcomes and scholars such as Macey and Miller (1995), O'Sullivan (1999) found no theoretical reasons why the impact of globalisation on corporate governance should be any different. Djelic (1998) provides compelling historical evidence that under pressure from Marshall Planners and advisors, German politicians, industrialists and labour leaders resisted the direct implementation of American corporate governance and industrial organisational blueprints during the 1950s. Domestic actors were found to be able to shape and mould American models to their own goals and priorities. Outcomes also depended on the resulting interactions and collaborative ties between executives, shareholders, financial institutions, suppliers and employees supported by the different set of banking, labour, tax, and competition laws and regulations.

Gordon (1998) additionally finds that even if a particular governance structure is found to be efficient, it is not necessarily in the interest of all groups in society to modify existing law or structure or to permit such reforms. Coffee (2000) for instance views shareholders as the classic example of an 'inchoate group', a group defined by Olson (1982) as 'a group that although large in number is not well organised and hence might have less

ability to influence political decisions than smaller but better organised groups such as labour, or corporate managers. Referring to the failed hostile takeover of Thyssen by Krupp in 1997 in Germany, Coffee (2000) further observes that political interest resulted from protests by Thyssen's union towards Krupp and its investment advisor Deutsche Bank lead to the German government brokering a long-term consolidation, which reduced the number of threatened job losses.

New-Institutional Theory

New-Institutional theorists argue that 'isomorphism' (DiMaggio and Powel 1983) is more influential in determining the formal structures in an organisation, often more profoundly than market pressures. This is because new and existing organisations faced with the same set of institutional environment will tend to adopt the same organisational forms or 'templates for organising' (DiMaggio and Powell 1991) because failure to adopt these forms will be seen as irrational and negligent (Meyer and Rowan 1977, DiMaggio and Powell 1983, Scott 1987, 1998). Nationally established organisations thus usually conform and adopt the expected appropriate organisational structures to gain legitimacy and increase their probability of survival. There are three distinct pressures through which institutional isomorphism occurs: coercive pressures arising from legal mandates or influence from the environment which is being dependent upon, mimetic pressures to copy successful forms in times of high uncertainty and normative pressures arising from similar attitudes and approaches of professional groups and associations brought into the organisations through hiring practices (DiMaggio and Powell 1983).

Culture

Although national culture is difficult to define with any precision (Licht 2001), it is strong though controversial theme in the determination of political, legal and economic institutions, influencing the assimilation of institutional innovations within corporate governance systems. Where cultural influence cannot explicitly explain variations (Lane 1989, Whiteley 1992), an institutional perspective considers culture as being embedded in observable social, political and economic institutions such as education, training, workplace representation and social relations (Peng 2000, Crang 1997, McDowell 1994). National institutions may thus embody, promote and defend national culture (Roe 1993, 1997, Bebchuk and Roe 1998) and top officers in large companies everywhere are embedded in social structures that link actors, influence and legislation (Davis and Thompson 1994).

The dimensions of national culture continue to be used in international business research in relation to associations between culture and the entrepreneurship (Begley and Tan 2001), wages and employee voice (Van der Vliert 2001, Thomas and Au 2003), entry mode choice (Brouthers 2002) and the performance of joint ventures as entry modes (Pothyckuchi et al. 2002). National culture has also been frequently drawn upon to help explain why institutions continue to differ considerably within countries (Gross and Wingerup 1999, Conyon and Murphy 2000). Cheffins (2003) analyses culture as a variable that may affect the globalisation of executive pay and observes that the meritocratic and 'winner take all' environment in the USA is more hospitable for lucrative, performance oriented managerial pay than the milieu elsewhere. Banking and tax laws in

the USA discourage relational investments by banks in industrial firms, and encourage them in Germany and Japan (Roe 1997). Anti-takeover devices have been gradually eroded by shareholder activism in the USA (Davis and Thompson 1994), while dual-board governance is allowed to obstruct takeovers in Germany. In this case, national culture and institutions become inextricably intertwined in their impact on corporate governance system. Patterns of pay maybe influence by a culture embracing high collectivism, that will itself influence tax regulations and other important institutional arrangements that in turn impinge upon the design of executive pay packages.

Table 3. 1: Dimensions of National Culture (Hofstede, 1997)

	USA/UK	Germany	Japan
Collectivism	Low (9/11)	Moderate (33)	Moderate (54)
Uncertainty Avoidance	Low (46/35)	Moderate (65)	High (92)
Power Distance Tolerance	Low (40/35)	Low (35)	Moderate (54)

Table 3.1 reports the three main national cultural attributes that may influence governance institutions for the four countries under consideration (Hofstede 1997). A low-high spectrum runs generally from left to right in Table 3.1, with the familiar low collectivism, low uncertainty avoidance, low power distance tolerance of the USA and UK contrasting with national culture in Russia, Germany and Japan. Low US/UK levels of power-distance tolerance, collectivism and uncertainty avoidance have implications for particular elements of corporate governance systems. For example, the open disclosure of company information to outsiders and minority shareholder protection is demanded by highly

individualistic shareholders with low power distance tolerance in relation to executives, and low uncertainty avoidance makes shareholders and executives willing to accept the risks involved in open disclosure. With legal, fiscal, social, political and economic institutions embedded in the distinctive national cultures of the USA and UK, the resistance of prevailing governance structures to proposed reforms that purport to advance collectivism, hierarchical control by executives, or insurance against risks for stakeholders can be understood. Hence, in these circumstances, interest groups from all sides tend to defend the status quo (Davis and Thompson 1994).

Thus, UK governance has been resistant to the attempts made by the European Union (EU) to impose works councils on large UK firms to advance employee participation and collectivism. By way of contrast, in the case of Germany, higher levels of collectivism and uncertainty avoidance manifest themselves in voice-based governance institutions that are said to comprise a community, or *Gemeinschaft* of stakeholders (Schenider-Lénne 1992). With moderate levels of collectivism, trust is an important feature of German firms, where incumbent employees and managers form coalitions and each party forgoes individual opportunities for short-term gain in favour of longer-term collective gains (Pistor 1998). As a result, banks and employees, fearing the uncertainty of takeover and liquidation, are strongly represented on upper-tier, supervisory boards, and encourage the accumulation of labour and financial reserves by firms (Macey and Miller 1997). The efforts by the EU to construct a takeover code that would force German firms to permit takeovers according to the democratic wishes of individual shareholders have consequently been blocked.

3.3 The Evidence

Within the literature, there exists no study so far which has been able to provide evidence that there is an unambiguous direct link between corporate governance and economic performance, thereby supporting the argument for convergence, in particular the efficiency theory. Instead, results of studies have brought up the possibility that corporate governance does not alone determine performance and that different corporate governance systems enable firms and countries to excel at different kinds of activities at different stages of the trade cycle. Quantitative studies undertaken by Thomsen and Pedersen (1996) show that differences in corporate governance across advanced industrial economies are not significantly associated with differences in financial or sales performance at the company level, after controlling for industry and firm size. They also imply that a shareholder-orientation may be best suited to downturns in economic activity. Similarly, La Porta et al. (1999) also find no evidence to indicate that differences in corporate governance systems consistently affect GDP growth over the long run.

The literature has documented great cross-national differences in terms of such essential aspects of corporate governance as the importance of large stockholders, the legal protection of shareholders, the extent to which relevant laws are enforced, the treatment of stakeholders such as labour, the reliance of debt finance, the structure of the board of directors, the way in which executives are compensated, and the frequency of takeovers. Concentrated ownership is still the rule rather than the exception throughout the world, and so is family control of even the largest corporations in most countries (Becht & Roll 1999, La Porta et al. 1998, 1999, Loredó and Suarez 1998, Shleifer and Vishny 1997, Thomsen and Pedersen 1996). The extant literature has not however produced

longitudinal evidence documenting changes in corporate governance practices for a number of countries large enough to confirm whether there is convergence to the 'efficient Anglo-American' system in the world.

Observing the lack of evidence in the literature, Guillén (1999, 2000) thus compare the rich and emerging countries in terms of: (i) foreign direct investment by firms under the influence of various governance systems in their home countries; (ii) the influence of institutional investors; (iii) the proportion of listed corporate equity held by different types of shareholders; (iv) the adoption of long-term incentives in CEO remuneration; (v) the occurrence of hostile takeovers; and (vi) the balance between debt and equity financing struck by non-financial firms. His findings indicate that: (i) the impact of foreign investment originating from countries with an Anglo-American market based corporate governance system is waning; (ii) institutional investors such as insurance companies, pension funds and investment companies have a very unequal presence across countries where it is highest in the UK and US and barely growing in Germany; (iii) patterns of stockholding have been remarkably resilient with the German tradition differing sharply from the Anglo-American one; (iv) only the Anglo-American countries were found using executive pay as a corporate governance mechanism and awarding long-term incentives in CEO remunerations; (v) the occurrence of hostile takeovers was not found to be worldwide phenomenon, but one largely confined to the US and the UK, both in terms of targets and acquirers and; (vi) the debt-equity ratios of non-financial firms remain very different across countries studied with Germany only showing few signs of convergence

over the last two decades. Guillén (1999) thus concludes that corporate governance systems are unlikely to converge across countries.

A surprising result of the Guillén (1999) study is the finding that Germany is insensitive to the global trend towards adopting long-term incentives in CEO remunerations when in fact larger German corporations had since 1996 started adopting long-term incentive forms similar to US-style stock option schemes for its senior executives. Indeed, the introduction of executive stock option schemes in Germany had attracted considerable academic attention for portraying alleged corporate governance convergence. Assessing the importance of such equity-based pay in Germany, Peck and Ruigrok (2002) performed company surveys and found that although equity-based pay is far from universal in Germany (35 per cent of sampled companies had no stock based schemes), it is an increasingly important phenomenon of the German pay scheme. I.e. stock option plans are the most prevalent form of equity-based pay in Germany existing in 55 per cent of the companies surveyed. The survey also discovered that most of the companies were aware of the importance of paying for performance with 78 per cent of companies using financial criteria in their bonus plans. Where the study by Guillén (1999) also failed to comment on the significance of the hostile takeover succeeding in Germany, it is assumed that this is because the study was not concerned with specific country analysis.

Coffee (2001) considers that recent evidence demonstrating law reforms in transition economies, weakening structure of concentrated ownership in Germany, France and Japan, the growth of European stock markets and the emergence of the market for

corporate control outside Anglo-American countries indicate that corporate governance is converging globally (Coffee 2001). A study by Pistor (2000) tracking the development of shareholder and creditor rights for twenty-four transition economies from 1990 through 1994 showed that despite substantial differences in the initial conditions across countries, there is a strong tendency towards convergence of formal legal rules as the result of extensive legal reforms. The law reform was primarily responsive to economic change (as opposed to leading it) and the tendency was towards the Anglo-American model with investor protection strengthened (Pistor 2000). Brancato (2000) sourcing data compiled by the Conference Board also shows that there is a measurable decline in the stakes held by banks and non-financial corporations in the twenty-five largest corporations in Germany, France and Japan, traditionally held by allies of the founding families and managements. The comparison conducted by Brancato (2000) has a study period of only one year; nevertheless, the data still demonstrates that shares unwound would have moved into the hands of public investors (Coffee 2001). Indeed, Tagliabue (2000) shows that 35 percent of outstanding shares of the forty largest companies on the Paris Bourse are now held by US and UK institutional investors and US institutional investors have increased their investments in foreign equity with the largest twenty-five US pension fund holders of international equity holding \$110.8 billion in foreign equities in 1996, \$181.1 billion in 1998, and \$265.6 billion in 1999 raising the question that a 'substitution effect' may be taking place.

A study by Van der Elst (2000) shows that the number of firms listing on European stock markets such as France, Germany and Spain have risen sharply from 1990 to 1999.

Other statistics by Van der Elst (2000) also reveal that stock market capitalisation as a percentage of GDP has increased in several European countries to the point that it now equals or exceeds the same ratios in the USA or the UK. These percentages are subject to greater fluctuations in countries with small populations or modest GDPs (such as Netherlands and Switzerland) and much of the market capitalisation in these countries remains in the hands of controlling owners. However, these results are deemed important because it reveals the suddenness of the transition (Coffee 2001). As the European market integrated in the mid-1990s, stock market values soared, both in absolute terms and as a percentage of GDP. The study also shows that while IPOs were once practices associated with the US and the UK markets, they have become common across Europe. In 1999, Germany saw 380 IPOs and France 581, compared to the past decade where Germany saw 168 IPOs and France, 75. Where systems of concentrated ownership are thought to lack the institutions necessary to bring new companies directly into the equity market and new firms are believed to be dependent on bank and debt financing, the significance of these figures bears emphasis (Coffee, 2000).

Stokes (2000) found that from 1986 to 1999, 86 per cent of all takeovers involved at least one American party, but in 1999, this percentage fell to only 40 per cent. At the same time, the percentage of corporate takeovers involving at least one European party rose from 15 per cent to 43 per cent. Looking at the market value of these transactions, takeovers involving a European party grew from 11 per cent of the world total in 1985 to 47 per cent in 1999 (Black 2000). The driving force for this transition is the integration of European currencies into Euro noting that European corporate bond market had tripled in

size in 1999 thereby ending the dependence of European acquirers on bank financing (Coffee 2001). Furthermore, this trend is expected to continue with the adoption of the 13th Company Law Directive by the European Union which requires EU member states to legislate to bar anti-takeover defensive measures after a takeover has been announced (Coffee 2001). Where the compliance of this directive is uneven, the legitimacy of the takeover as a mechanism of corporate governance has been accepted. Indeed, as been stated before, the successful case of the hostile takeover by Mannesmann by Vodafone Airtouch plc indicates that corporate actors are reviewing their previous strategies towards the market for corporate control (Cheffins 2001, Jürgen et al. 2002, Coffee 2001, Bayer and Hassel 2002). Compared to previous hostile takeover attempts in Germany, the *Hausbanks* or banks affiliated to the commercial undertakings hesitated to side with Mannesmann. Labour, politicians, and wider public opinion also did not engage in taking sides against the takeover. Additionally, recent debates of the expert commission on German takeover regulation chaired by Chancellor Schroeder showed a high degree of acceptance of the emerging practice of hostile takeovers (Bayer and Hassel 2002), even though the German government later chose to adopt a dissenting view on the European takeover directive as being too friendly towards the bidder.

Interestingly, while Coffee (2001) makes a point about legal reform taking place within the transition economies, no point was made as to equally important legal reforms taking place in Germany. Deeg and Lutz (2000) note that from the mid-1990s onwards, important legal changes were made in Germany with the aim to liberalise financial markets by providing a more transparent framework for the operation of stock trading.

Three laws were notably passed and reformed specifically for the promotion of the German financial market (*Kapitalmarkforderungsgesetze*) between 1990-1998, establishing a supervisory agency for stock trading at the federal level and setting up of rules of conduct for the participants. Bayer and Hassel (2002) write that in 1998, two corporate laws were changed to improve the position of minority shareholders. For example, the law facilitating the raising of capital (*Kapitalaufnahmeerleichterungsgesetz*) enabled German companies to issue financial statements based on international accounting standards (IASS or US GAAP) rather than on German accounting standards (HGB). Previously, companies could issue these statements using IASS or US GAAP in addition to German accounting statements. For companies that aimed at being listed on foreign stock exchanges and, in particular, the NYSE, this was a major improvement. Where international accounting practices are considered to be more transparent than German accounting standards, it can be said that applying international accounting standard improves the ability of shareholders to judge the performance of firms (Bayer and Hassel 2002). The German government also passed the 1998 Control and Transparency Act (KonTraG). The *KonTraG* was a comprehensive piece of legislation that aimed at increasing the transparency of companies in the interest of investors and at improving the control function of supervisory boards (Bayer and Hassel 2002). The law was also reformed to increase investors' rights when the law prescribing the principle of 'one share one vote' was passed thereby banning shares with multiple votes (*Mehrfachstimmrecht*) and limited votes (*Hochststimmrechte*). Moreover, it restricted the use of proxy voting by banks in those cases where the bank itself holds more than 5 per cent of the firm's stock and all investors are required to disclose holdings above a margin

of 5 per cent. For listed companies, the law also prescribed that the accounting statements report for segments.

Another example of an important legal change occurring in Germany is the decision by the government to end the prohibition of the US-style stock option schemes and the amendment of the German Stock Corporation Act (AktG) in 1998 to freely allow German corporations to issue straightforward stock option schemes by either issuing new shares or repurchasing outstanding equity to meet obligations. It was following the passing of the AktG that most large German corporations started to adopt some form of US-style executive pay and introduce stock option schemes (Cheffins 2001). German tax laws were also changed in 2002 to remove the disincentives for share sales by long-term, relational investors like banks, so the shares of large firms are becoming generally more liquid, a necessary condition for executive stock option schemes as effective incentives.

Where the evidence shows that legal reforms are taking place and hostile takeovers and executive stock option schemes are being introduced in Germany, it does appear as if German corporate governance is converging on Anglo-American patterns. Nevertheless, there exists no research so far, which have actually studied these actual processes (Branson 2001, Khanna et al. 2002). Consequently, this review considers the alternative proposal of convergence occurring via 'functional convergence' and the recent developments in institutional theory in the form of neo-institutional theory.

3.4 Formal Convergence Vs Functional Convergence

Coffee (1999) develops an alternative proposal for convergence by distinguishing 'formal convergence' (convergence to common legal rules and practices) from 'functional convergence'. He argues that even when formal convergence is blocked by political, legal, or institutional barriers, convergence can still emerge through 'functional convergence' in a process of migration and substitution. For example, a corporation coming from a home country with weak securities markets may decide to cross-list on a stronger, foreign securities market in the USA or the UK to raise capital, increase share capital or make acquisitions. There, companies will find it impossible to avoid adopting corporate governance practices consistent with maximising shareholder value as institutional investors and pension funds will put pressure for a credible commitment that they will not be exploited (Coffee 1999).

Companies that do not meet these requirements are predicted to decline in terms of global competitiveness (Bishop 1994, Charkham 1995, Ibbotson and Brinson 1993, Loredó and Suarez 1998, OECD 1998, Useem 1996). Indeed, it is a well known fact that most of these investors are insurance and pension funds and are interested only in return on investment (Bloch 1998) and thus would prefer companies to maximise shareholder value, observe shareholder rights, be transparent in their reporting of corporate activities and results (Useem 1994) and provide standardised information (Ibbotson and Brinson 1993, Shleifer and Vishny 1997).

For example, by listing on a US exchange a foreign company accepts the obligation under Section 13(d) of the Securities Exchange Act of 1934 to disclose holders of more than 5

per cent of its outstanding stock, a significantly more stringent trigger than the 10 per cent threshold required by the EU Transparency Directive. The company also accepts the rules under Section 14(d) governing the procedural and substantive aspects of tender offers, those under Section 13(e) governing going private transactions and those under Section 13(b) governing the making of questionable payments. Although the SEC has allowed some exemptive relief for foreign issuers when the detail of a particular requirement is inconsistent with the law of a foreign company's home jurisdiction, the scope of governance rules adopted by the act of listing and the resulting application of the Securities Exchange Act is significant.

Hence, where the evidence show that legal reforms are taking place and hostile takeovers and executive stock option schemes are being introduced in Germany, it does appear as if German corporate governance is 'functionally converging' on Anglo-American patterns.

3.5 Neo-institutional Theory

Change has always posed a problem for institutional theorists, most of whom discussed institutions as a source of stability and order (Scott 2001). Traditional institutional theory originally evolved from the discipline of sociology where firms exercised power but were perceived as seeking legitimacy, i.e. reconciling organisational efficiency goals with social functions (Selznick 1957, 1996). New institutional theory (Meyer and Rowan 1977, DiMaggio and Powell 1983, Aldrich 1999) also emphasised cognitive filters, affiliations,

myths and routines rather than legitimacy. In parallel with these sociological developments, disciplines of political economy (North 1990) and economics (see Williamson 2000) in developing their institutional branches also continued to emphasise on the embeddedness of institutions in national cultures and environments (Granovetter 1985), resistance to institutional change, path dependence and strategic inertia in firms.

Unlike these theories, neo-institutional theory seeks to understand change by moving beyond the ideas of inertia and persistence and focusing on the interplay of contextual forces and intra organisational dynamics (Greenwood and Hinings 1996). Hence, instead of concentrating on templates that originate in the institutional context, and around which networks of organisation converge, neo-institutional focuses on tracking the effects of changes occurring in power dependencies brought about by crucial market and/or institutional pressures. The premise is that shifts in power dependencies, whether brought about by market and/or institutional pressures will enable radical organisation change. The main drivers causing such shifts in power dependencies are related to resource dependency (Pfeffer and Salancik 1978) and have been identified by Oliver (1992) to include: functional pressures arising from perceived performance shortcomings, political pressures arising from shifts in the interest and underlying power distributions that have underpinned existing institutions and social pressures, arising from fragmented interest groups with discordant views.

Organisations that are centrally located within an institutional context may however be less likely to incur change (Greenwood and Hinings 1996) and there is equally a need for

power structures to articulate clearly the alternative templates for organisational change. Alternatively, corporate governance changes can easily be blocked through concentrated power structures which continuously reaffirm the importance, efficiency and effectiveness of the current system (Greenwood and Hinings 1996). From their political science perspective, Hall and Gingerich (2001) emphasise the interdependence of governance institutions and the way that different institutions mutually reinforce each other, resisting change.

While institutions can influence organisational arrangements (Jepperson 1991, Jepperson and Meyer 1991), key actors in organisations are the ones articulating and implementing strategies (Fligstein 1991). Top officers in government and in large industrial firms play a crucial role here, embedded in social structures that link actors and influence legislators (Davis and Thompson 1994). For example, senior executives may be able to drive governance changes following experiences with international executive labour markets, and some firms may need to develop global product strategies to compete on world markets for goods and services (Davis and Thompson 1994). Executive influence on institutions may be strongest when strategies are capital-intensive, i.e. when external financial capital is the resource upon which firms are most dependent, and where local supplies are inadequate. These circumstances for systematic institutional change processes are consistent with the limited convergence experienced in South Korea (Millhaupt 1998) and Taiwan (Seo and Creed 2002).

3.6 The Speed of Adjustment

Yet, convergence might still not occur, as radically or as rapidly suggested. Predicting that German public listed companies will most likely be interested in adopting only certain elements from the Anglo-American system and slowly, Peck and Ruigrok (2000) surveyed the perception of German companies on corporate governance arrangements. They find that there exists a wide variety of options on the desirability of reforms of the German system towards more overtly pro-market German market principles, making it unlikely that there will be a rapid convergence of the German corporate governance. This belief that any changes will be gradual instead of radical is also supported by Berndt (1998). Seeking to critically investigate the proposition that German companies converge upon becoming dependent on external financial capital, Berndt (1998) discovers that as conglomerates become more dependent on the perceptions and expectations of international financial capital as they expand their scale of activities. However, the eventual outcome is not a radical change but a dialectical process with the forces of dynamic change and institutional practice present at the same time and governance dilemmas being solved by decision makers.

Exploring the effect of globalisation on the German corporate governance system, Lane (1999) finds that the underlying structures of ownership and control have continued to support long-termism, and entry into foreign stock markets has moderated, but not undermined it. Where there is greater emphasis on the stock market and shareholder value, the German financial system has adapted them in a way which defines new structures and processes compatible with the German business system. Similarly, studies relating to human resource management and the internationalisation of German

companies by Ferner and Varul (2000) find that practices disseminated from vanguard subsidiaries of German multinational corporations acquire a different meaning when located within different business context. For example, evidence from Germany show that resource management practices are subject to the scrutiny of labour unions where the workforce is still covered by collective bargaining agreements. The presence of the co-determination system ensures that employers maintain positive relations with the works council, who are not only legally entitled to consultation and important information but are also able to restrict the degree of managerial autonomy. Given that councils seek to preserve the strong traditions of social welfare, management may actually possess insufficient freedom to develop human resource management practices independently according to the strategic interests of the firm.

It is therefore argued by some scholars that one may thus be witnessing a gradual process of convergence in the German manner rather than radical weakening of the German corporate governance model. Lane (2003) envisages that existing German institutions will mediate the impact of the changes and doubts that convergence will result in a creation of a German model identical in all of its features to the Anglo-American model. Nevertheless, the transformation of the underlying system logic is expected to initiate fundamental and far-reaching changes in all institutional sub-systems.

3.7 Conclusions

The objective of this chapter was to provide a review of the arguments surrounding corporate governance and convergence within current literature. The chapter started by reviewing ideas which supported corporate governance convergence. Basically, economists espousing this theory argue that corporate governance is similar to technology, and that the globalisation or competition of the product, labour and capital market will result in different countries adopting 'efficient' corporate governance practices consistent with free capital markets, maximising shareholder value. On the other hand, there are many scholars who oppose the idea of convergence. Certain legal theorists for example view corporate governance as being more than simply a technology, but instead constrained by prevailing culture and institution. Other scholars agree highlighting the importance of path dependency, political influence, emphasising on the stability of organisational arrangements.

Counter-convergence arguments provide credible reasons to question the idea of corporate governance systems converging. Nevertheless, in reality, certain important legal and economic transitions are evidently occurring in many countries, including Germany. Indeed, it seems clear that corporate governance convergence is occurring at a certain level in Germany, possibly prompted by legal reforms and the adoption of executive stock options or even through a market for corporate control and a more real threat of hostile takeover.

Where there is a possibility of convergence, it seems important to consider the alternative proposal of 'functional convergence' which is suggested to occur when formal

convergence is blocked by political, legal, or institutional barriers; through a process of migration and substitution which happens when a firm cross-lists its shares in another stock market. Recent developments in neo-institutional theory purport to understand change by progressing beyond the ideas of inertia and persistence, and focusing on induced rather than coercively imposed changes. Utilising the resource-dependence-model, which links market changes, power dependencies and radical change, the framework provided by neo-institutional theory suggests that radical change may occur if market or institutional change shifts the existing power dependencies, and the dominant coalition recognises the weakness of the existing template and is aware of the alternatives. Even where convergence can be detected, its progress may be extremely slow.

In the case of Germany, senior executives might thus be able to drive governance changes, e.g. US-style executive stock options, after participating in international executive labour markets, and/or needing to attract international financial capital in order to push through global product strategies required by increasing global competition. In such circumstances, US investors as suppliers of the dominant resource upon which large German firms are depended on might thus be in the position to introduce executive pay innovations or strategic key decisions in relation to Germany's corporate governance.

However, even then, convergence on the Anglo-American model might still not be as rapid or radical as suggested. The belief that any changes will be gradual is supported by the literature on human resource management, which finds that changes may either

acquire a different meaning when located within different business contexts, or analysis describing changes which occurred as a dialectical process. While it is not envisaged that convergence will result in the creation of a German model, identical in all of its features to the Anglo-American model, any changes of the underlying system logic is nevertheless expected to initiate fundamental and far-reaching changes in all institutional sub-systems.

With all this speculation over convergence, an analysis of the final structure of executive stock options in Germany may grant a way in which the convergence debate can be resolved. Executive stock option schemes in Germany may be identical to those in the USA or UK in a process of convergence, or a closer examination and a comparison of their structure to US type systems may reveal a diluted incentive instrument where attempts to balance shareholders' interests with the interests of employees and other stakeholders may result in the German schemes reflecting modified, but continuing relational governance i.e. counter-convergence. It seems important therefore to investigate at a deeper level the innovation of German executive share option schemes. Accordingly, Chapter 4 moves the thesis forward, by developing research propositions that recognise the reality of institutional stability and change, and not just their appearance.

Chapter 4: Development of Research Propositions

4.1 Introduction

Chapter 3 reviewed the arguments surrounding corporate governance convergence in the current literature, with the aim of obtaining a better understanding of the theoretical context for analysing governance and possible convergence in Germany. The purpose of this chapter is to develop a set of propositions relating to the convergence of German executive pay that recognise the reality of institutional stability and institutional change and not just their appearance.

This chapter is structured into three main sections. *Section 4.2* briefly recaps the research background and restates the research question. *Section 4.3* generates the research propositions. *Section 4.4* concludes the chapter.

4.2 The Research Question Restated

Chapter 2 highlighted that from a corporate governance perspective, executive stock options are considered to be a vital corporate governance instrument in the market-based system of USA and UK. Where internal and market governance instruments have been

recognised as not being totally effective in preventing executives from prioritising decisions relating to their job security or salary levels (O'Sullivan 1999, Monks and Minow 1995, Milgrom and Roberts 1992), the link between stock options (pay) and share price appreciation (performance) enables stock options to realign the interest of risk-averse executives with those of risk-neutral shareholders by trading off executives' risks and incentives (Murphy 1999).

In Germany, executive pay innovations in the form of stock option plans play a far less significant role. Because German corporate governance is more concerned with achieving sustainable, stable and continuous growth benefiting stakeholders, there has been no need for governance instruments in the form of stock options. In 1996 however stock option plans appeared in Germany. Large German corporations such as DaimlerChrysler, Deutsche Bank, Deutsche Telekom, Hoechst and SGL Carbon started introducing US-style stock option schemes in the form of convertible bonds, warrant bonds, and SARs. In 1998, the government's decision to amend the German Stock Corporation Act (AktG) to allow corporations to issue US-style stock option schemes resulted in most large German corporations adopting US-style stock option schemes.

Chapter 3 explained that economists espousing faith in the 'efficiency-enhancing' aspects of competition and globalisation (Easterbrook and Fischel 1991, Demsetz 1983, Hansmann and Kraakman 2002) have cited this as exemplary evidence of alleged convergence of German corporate governance. Counter-convergence theorists on the other hand refute this allegation, arguing that corporate governance systems are tightly

coupled with path-dependent regulatory traditions (Bebchuk and Roe 1998, 2000, Roe 1994). Corporate governance do not exist in isolation of other institutional features which influence strategies and global pressures on corporate governance practices are mediated by domestic politics in way which renders convergence unlikely (Millhaupt 1998, Gordon 1998). New-institutional theorists attribute this to 'isomorphism', where the stability of the system is maintained by national institutions embodying, promoting and defending national culture (DiMaggio and Powell 1983, Meyer and Rowan 1977). National institutions may also embody, promote and defend national culture (Roe 1993, 1997, Bebchuk and Roe 1998) and top executives in large companies are embedded in social structures that link actors and influence legislations (Davis and Thompson 1994).

The prevalence of the stakeholder model and the influence of banks on corporations in Germany indicate support for counter-convergence theories, arguing against the prediction of the German governance system converging. Recent evidence in the form of larger German corporations adopting US-style executive stock option schemes and an occurrence of a successful hostile takeover however indicate that convergence may be occurring at some level. German companies cross-listing themselves on the foreign securities market in the USA or the UK may find it impossible to avoid adopting corporate governance practices consistent with maximising shareholder value. Large German firms may also need to show that they are capable of pursuing global strategies.

There exists no research so far which have actually studied these actual processes (Branson 2001, Khanna et al. 2002). This thesis attempts to study one of the processes:

the adoption of executive stock option schemes by German firms by considering the alternative proposal of 'functional convergence'. Essentially, the theory purports that functional convergence can still emerge in a process of migration and substitution even when formal convergence is blocked by political, legal, or institutional barriers. Hence, a German corporation cross listing on a foreign securities market in the USA or the UK may find it impossible to avoid adopting corporate governance practices which are consistent with maximising shareholder value. Large German firms may also need to show that they are capable of pursuing global strategies.

Recent developments in neo-institutional theory seek to understand change by progressing beyond the ideas of inertia and persistence, and focusing on induced rather than coercively imposed change. Where the resource-dependent-model posits a link among market changes, power dependencies, and radical change, neo-institutional theory recognises that radical change is possible if the dominant coalition also recognises the weakness of the existing templates and is aware of the alternatives.

In the case of Germany, senior executives might thus be able to drive governance change after participating in international executive labour markets, and/or needing to attract international financial capital in order to push through global product strategies required by increasing global competition. In these circumstances, US investors, as suppliers of the dominant resource upon which large German firms are dependent, might thus be able to introduce executive pay innovations or strategic key decisions in relation to German corporate governance.

However, there remain fundamental contradictions between relational governance and US-style stock option schemes, which aim to maximise shareholder value. A large number of German firms are controlled by government entities at the federal and state level and government owners tend to pursue political, rather than value maximising, objectives (Shepherd 1989). Roe (2000) suggests that government entities tend to impede implementation of governance practices aimed at aligning the interests of managers and shareholders. The literature on human resource management also suggests that changes may acquire a different meaning when located within different business contexts.

More succinctly, the main conclusions that can be drawn from the review are as follows:

(i) Changes are taking place in Germany. Important legal reforms have proceeded, a hostile takeover has occurred and larger German corporations had since 1996 started adopting executive stock option schemes.

(ii) There are many competing theories attempting to explain these changes. One of the most commonly cited arguments is that the changes indicate that globalisation is driving Germany to adopt the best practice form of the corporate governance structure. On the other hand, counter-convergence theorists emphasise that important features of the traditional German corporate governance system have persisted; observing that German corporate governance is constrained by institutions and culture.

(iii) There is an alternative proposal of 'functional convergence', which is suggested to emerge in a process of migration and substitution when formal convergence is blocked by political, legal, or institutional barriers. For example, a corporation deciding to cross-list on foreign securities markets in the USA or the UK may find it impossible to avoid adopting corporate governance practices consistent with maximising shareholder value.

(iv) There remain fundamental contradictions between relational governance and US-style executive stock option schemes. The implicit aim of US-style executive stock option schemes of maximising shareholder value is incompatible with the concept of the German firm as a social institution and its sense of *Gemeinschaft* created to enhance community welfare.

(v) The concept of neo-institutional theory suggests that radical change may occur if market/institutional change shifts the existing power dependencies and the dominant coalition recognises the weakness of the existing template and is aware of the alternatives.

(vi) Even then, there is still doubt as to whether convergence will result in the creation of a German model identical in all of its features to the Anglo-American model. One may be witnessing a gradual process of convergence in the German manner rather than the radical weakening of the German corporate governance model.

Chapter 3 showed that empirical research examining corporate governance convergence has so far only examined indicators of corporate governance converging, for example the occurrence of hostile takeovers, legal reforms and the adoption of executive stock option schemes by larger companies. Where such research corresponds with the zero/one adoption/rejection model, there appears to be a clear void in empirical research that examines the characteristics of the hostile takeover or executive stock option schemes adopted (Branson 2001, Khanna et al. 2002).

Studies concerning German executive stock option schemes are hampered by a lack of disclosure in terms of German executive pay while hostile takeovers in Germany have only recently been successful. With improving information disclosure on German executive pay improving, it seems important to analyse and compare German executive stock option schemes to US/UK executive stock option schemes. A closer examination of German executive stock options may reveal that they only superficially resemble US-style schemes, where attempts to balance shareholder interests with the interests of employees and other stakeholders may result in German schemes reflecting modified but continuing relational governance. This thesis thus proposes to examine closely German executive share option schemes and compare their structures to US and UK-type executive stock options, asking the research question: *Does executive pay in the form of stock option schemes for executives in Germany really induce US-style governance?*

4.3 Development of Research Propositions

In developing the research propositions, it is assumed for a moment that institutional theories with emphasis on path-dependence, embeddedness, political influence, isomorphism and culture are appropriate for German corporate governance. This approach is justified by two rationales. Firstly, where corporate governance in Germany has been defined as 'the means by which important decisions are controlled by the firm's stakeholders, both governance systems and elements (e.g. executive pay) can be seen to constitute institutions, i.e. regulative normative and cognitive influences on firms (Scott 2001). Secondly, important institutional features of the traditional German corporate governance system have persisted (Lane 2003, Lane 1999, Pauly and Reich 1997, Dorre 1996, Ruigrok and van Tulder 1995).

For example, German firms have not been rushing to list their shares on the stock exchange and the German stock market, in comparative perspective, remains undercapitalised. Family ownership of large companies persists and not all large German companies are subjected to stock market pressures given that German companies become listed much later in their life cycle and at a much higher threshold (Mayer and Whittington 1999). Individual shareholding, although increased, remains low by international standards and thus hinders the development of a shareholder culture. Recent adverse developments in the capital markets, particularly the collapse of the *Neuer Markt*, have also resulted in renewed scepticism about financial markets. Ownership concentration among listed companies remains significant (Mayer and Whittington 1999) thus obstructing the development of an outsider system of control and of a market for corporate control. The influence of foreign investment funds, the most

insistent claimants for shareholder values, has been significant in only a small proportion of cases – about ten per cent of large listed companies (Lane 2003). In addition, there has been no change in company law, and the system of co-determination is still intact with employee stakeholder retaining some degree of influence, if not control within the firm. The two-tier board, designed for insider control, also remains in place.

It is also assumed that the German pattern of pay is influenced by a culture embracing high collectivism, which will itself influence tax regulations and other important institutional arrangements that in turn impinge upon the design of executive pay packages. The dimensions of national culture continue to be used in international business research in relation to associations between culture and the entrepreneurship (Begley and Tan 2001), wages and employee voice (Van der Vliert 2001, Thomas and Au 2003), entry mode choice (Brouthers 2002) and the performance of joint ventures as entry modes (Pothyckuchi et al. 2002). Therefore, this thesis proposes to extend the use of Hofstede's dimensions to certain elements of corporate governance, adopting a 'co-evolutionary' perspective (Lewin et al. 1999, Lewin et al. 2004) whereby culture moderates interactions between old and new institutions – and new institutional arrangements evolve in ways consistent with, and reflective of, a nation's value system. This hybrid, cultural/institutional perspective is consistent with Lowe (1998: 322) who emphasises the '*...complex inter-determinism between influences of pre-modern values, modern values, formal institutional and formal institutional norms...*'

National culture may thus have more general governance implications for systems as a whole, beyond the piecemeal approach of Licht (2001) and Licht et al. (2003). For example, the stylised elements of 'market-oriented' (Anglo-American) corporate governance system would include: a high proportion of liquid shares in the hands of dispersed, outside shareholders, or of financial institutions with dispersed outside shareholders; hostile takeovers; accounting rules for open information disclosure to outside investors; single-tier boards of outside shareholder representatives and executives; law protecting minority shareholders and; a high proportion of equity-based pay for executives. On the other hand, the stylised elements of the 'network-oriented' (German) corporate governance system would be characterised by: a high proportion of shares held by family members or other stakeholders such as banks, suppliers, competitors, the State, employees, etc; 'friendly' mergers; corporate secrecy; dual boards with wider stakeholder representation; weak minority shareholder protection with extensive use of pyramid shareholdings and; executive pay heavily reliant on base salary.

Each of these governance elements can be paired off and considered in the context of the cultural dimensions of 'Uncertainty Avoidance' and 'Individualism/Collectivism'. For example, where levels of 'Uncertainty Avoidance' are low, individual shareholders, employees and other stakeholders are relatively willing to bear risks. With a 'market-oriented' corporate governance system, one major uncertainty concerns the fluctuation in a firm's share price and so low 'Uncertainty Avoidance' is consistent with this system of governance. These fluctuations discipline managers, and a tradition of low 'Collectivism' is

unlikely to throw up the collective stakeholder action needed to provide an alternative, relational form of governance.

On the other hand, with high 'Uncertainty Avoidance' - stakeholders are conservative in risk taking, combined with high 'Collectivism' - individual shareholders of stock market capitalism may represent a major source of uncertainty, and thus anxiety, for relatively undiversified stakeholders. The sale of shares following the disclosure of information concerning weak corporate performance can lead to a hostile takeover, retrenchment, and variable levels of pay. For example, one particular group of undiversified stakeholders, company employees, may feel particularly threatened by weak performance (Fernandez and Rodrik 1991) and may voice for board representation and the construction of a consensus-based organisation. Senior managerial employees are a special, undiversified subset of total employees (Hall and Murphy 2002) who may collude with other employees in these arrangements.

In these circumstances, a cultural inheritance of even moderately high 'Uncertainty Avoidance' and 'Collectivism' may be expected to create an environment hostile to stock market capitalism, and favourable to some variety of 'market based' governance. In other words, high levels of 'Collectivism' may encourage stakeholders to demand corporate structures that facilitate collective decision-making based on community and consensus (Dore 2000, Hall and Gingerich 2001), while individualism will stimulate minority shareholder protection, information disclosure to dispersed shareholders and a permissive attitude towards wide variations in pay for executives and other employees.

Thus, it is assumed that a national culture featuring low (high) levels of 'Uncertainty Avoidance' and low (high) levels of 'Collectivism' will be associated with the presence of elements of market-oriented (network-oriented) governance system. Licht et al. (2003) find supporting evidence for this in their piecemeal consideration of the rights of individual shareholders versus executive directors and individual creditors. Additionally, in their seminal paper on executive pay, Conyon and Murphy concluded that (2000: 667). '...the US, as a society, has historically been more tolerant of income inequality, especially of the inequality is driven by differences in effort, talent, or entrepreneurial risk taking'.

The review in Chapter 3 regarding the influence of culture on corporate governance systems and table 3.1 show that low 'Collectivism' and low 'Uncertainty Avoidance' are associated with a 'market-oriented' governance system, and a 'network-based' governance system (represented by German and Japan) shows quite high levels of each of these dimensions. While cause and effect cannot be identified by illustrations or regressions, the associations between cultural attributes and governance system seem to be important for the analysis of governance changes.

According to neo-institutional theory, shifts in power dependencies, whether brought about by market and/or institutional pressures, will allow corporate governance convergence. However, corporate governance changes can be blocked through concentrated power structures that continuously reaffirm the importance, efficiency, and effectiveness of the current system (Greenwood and Hinings 1996). The presence of co-determination systems ensures that employers maintain positive relations with the works

councils who seek to preserve the strong traditions of social welfare. Indeed, senior managers in large German firms have traditionally made recommendations concerning important strategic decisions (e.g. executive pay) to *Aufsichtsräte* (supervisory boards) where there are strong representations of employees (in turn reflecting the views of *Betriebsräte*, or works councils), banks, family shareholders and the nominees of related firms linked through cross-shareholdings (Adams 1998). Current labour market relations in Germany (see Jacobi, Keller and Mueller-Jentsch, 1992) are the complex outcome of interactions between national culture and institutional developments over a long period.

In the language of neo-institutional theory, the *Aufsichtsräte* and *Betriebsräte* of large German firms may be effective points of passage for governance institutions like executive stock option schemes. The labour unions (and banks) that lie behind *Aufsichtsräte* are themselves associated with networks of interested parties. In these circumstances, an organisational innovation such as the executive stock option scheme, designed in the USA to suit local actors, may contradict prevailing German culture, contingencies, and coalitions of interests, making them liable to drastic adaptations. As a development of the general propositions therefore, the executive stock option scheme seem to be a potentially illegitimate innovation for German firms. Executives and employees with a long tradition of *Germeinschaft* and moderately high levels of collectivism may resist an innovation that offers potential conflict between senior managers and other employees, and greater pay inequality. With moderately high levels of uncertainty avoidance, executives may resist a pay instrument that promises highly uncertain, share price contingent returns, and other employees may resist an innovation

that gives executives more incentive to perform better in terms of share price, than, say in job creation and preservation (Newman and Nollen 1997).

Supervisory boards, as passage points for German executive stock option schemes embodying powerful employee representatives with an obvious interest in such a remuneration innovation, have important implications for five practical attributes of stock option schemes. For each attribute, employee representation in the context of national culture, with moderately high levels of uncertainty avoidance and collectivism, is likely to lead to executive stock option schemes that are 'tougher' on executives than in the USA, where the innovation originated.

This assumption of resistance to fundamental change has been extended to produce the research propositions. Because the adoption of executive stock option schemes by German companies has only recently occurred, and important data that did not previously exist relates to one financial year, the propositions developed will have to take a snapshot cross-section view rather than noting transitional changes. An obvious proposition would concern the relative openness of information closure but because the comparative situations in the USA, UK and Germany are obviously different, formal hypothesis testing is perhaps necessary. Information on German executive stock option schemes is so thin, it is often impossible to establish the most rudimentary characteristics of such schemes. Conversely, full disclosure is quite common in the USA and the UK, even facilitating the calculation of option values for individual directors at any point in time.

The first proposition involves the number of senior managers and employees covered by German schemes. With executives anxious to avoid the uncertainty of variable incomes, and with employees fearing the uncertainties created by a strong link between executive pay and share price, a collective sense of community between executives and employees is expected to produce executive stock option schemes that are more egalitarian compared to the USA and UK, in the sense of being offered to a higher proportion of total employees.

Proposition 1 (P1): *Executive stock option schemes in German firms may be expected to be more egalitarian, extending down a firm's vertical hierarchy to include a greater proportion of the total labour force, than equivalent schemes in the USA and UK.*

Similarly, where a community of stakeholder imposes tight, collective voice control, managerial decisions may be uncomfortable with the wide variations in the dispersion of income and wealth that executive stock options imply. Collectivist employees and labour unions, intolerant of power-distance and with distaste for 'hard' individual orientation in pay structures, inequalities, and the uncertainty of inequalities (Gooderham et al. 1999) may also exert to influence more egalitarian schemes in the form of smaller executive stock option tranches as well as larger number of potential beneficiaries. Hence, despite the predicted more extensive coverage of schemes in terms of their wider membership (Proposition 1), German executive stock option schemes may still be expected to offer lower rewards in total. This tendency may be reinforced by high levels of uncertainty

avoidance and the preference of German executives and other employees to have fixed salaries rather than variable executive stock options based rewards. Therefore:

Proposition 2 (P2): German executive stock option schemes may be predicted to involve smaller proportions of firms' total issued capital under option in executive stock option schemes than in comparable US and UK schemes.

With the cultural preference of executives and other employees for community and consensus rather than conflict, it may be argued that employees are unlikely to use their bargaining power and threats of industrial action in a US/UK style to obstruct cost-cutting strategies. While employee representatives may voice their objection to retrenchments at supervisory board meetings, share price reductions may be seen by employees as a real threat at a time when links with banks and other 'employee friendly' investors are being weakened. Executive stock option schemes should encourage executives to give a higher priority to share price movements, and this could indirectly encourage cost-cutting strategies. Employees, banks etc have a relatively high degree of participation in strategic decisions in German firms (Ferner 1997, Cheffins 2003). In the context of conservative employees and bank representatives with a preference for uncertainty avoidance (Macey and Miller 1997), it may be hypothesised that employees will try to introduce performance conditions that distract executives from the single-minded pursuit of maximum shareholder value in favour of a greater number of alternative performance conditions

capable of deflecting executives from their executive stock option scheme motivated focus on short-term share price and the realisation of gains. It is therefore proposed that:

Proposition 3 (P3): *With low levels of executive power in Germany subject to a degree of collective control, the attachment of quantitatively more performance conditions in executive stock option scheme awards can be predicted with the USA and UK.*

If performance conditions are attached to options, executives in the USA and UK may prefer performance conditions that are more susceptible to manipulation (Elitzur and Yaari 1995), but supervising employees in German firms may wish to prevent managers from influencing a pay innovation in such an inequalitarian way that creates new uncertainties for employees. Consequently, following Proposition 3, the use of qualitatively more demanding performance indicators in Germany can also be predicted from the arguments. Predicting the strictness of performance conditions may prove to be more complicated. For example, indexing against retail prices generally represents a less challenging performance condition than indexing against capital market trends, industrial trends or trends in a bespoke peer group of firms (this progression corresponds to that in New Bridge Street 1996). Stricter conditions involve earnings per share (EPS) and total shareholder returns (TSR). Following Murphy (2000) and Wright and Kroll (2002), external performance indicators that are subject to some managerial discretion are considered to provide softer targets. Where dividends announcements and accounting manipulation can

affect EPS, this may be considered a softer condition compared to TSR. It is hence proposed:

Proposition 4: German executive stock option schemes will employ qualitatively more demanding German performance indicators than comparable schemes in the USA and UK.

Where German firms are seen as embedded in society, representing long-term relationship between shareholders, stakeholders and the interest of the community as a whole, executive stock option schemes may be expected to be longer-term compared to the US and UK. Executive stock option schemes should encourage executives to longer-term targets, and this could encourage longer-term qualification periods. Additionally, in the context of conservative employees and bank representatives with a preference for uncertainty avoidance (Macey and Miller 1997), employees and bank representatives may try to introduce executive stock option schemes that distract executives from pursuing short-term targets, encouraged by short-term qualification period, in favour of longer-term qualification period. Hence, while major executive stock option schemes in the USA and UK are typically offered with short-term qualification period, it is predicted that German executive stock option schemes will contain a longer-term qualification period. Hence, it is proposed:

Proposition 5: Corporate governance in Germany will produce executive stock options with longer qualification periods imposed before option exercise than in the USA and UK.

4.4 Conclusions

This chapter is crucial to this thesis in formulating a set of research propositions relating to the convergence of German executive pay. This process was achieved by firstly, discussing issues which give rise to the research question, noting in particular that the implicit aim of US-style executive stock option schemes of maximising shareholder value remains incompatible with the concept of the German firm as a social institution and its sense of *Gemeinschaft* created to enhance community welfare. At the moment, there exists little research in the literature showing that the adoption of US-style executive share option schemes by large German corporation does not represent convergence at some level.

Attempting to analyse German executive stock option schemes for convergence at a deeper level, this chapter develops a set of testable propositions that recognise the reality of institutional stability and institutional change and not just their appearance. It was assumed that traditional institutional theory, with its emphasis on path dependence, institutions, and embeddedness, was appropriate for German corporate governance. Thus, propositions were developed that propose that executive share option schemes will

remain essentially 'German'. That is, they will significantly differ from their Anglo-American equivalents in a number of important ways, consistent with prevailing long-term, relational corporate governance rather than prioritising shareholders to the exclusion of other stakeholders. The next chapter describes the research methodology that will be used in attempting to test these propositions.

Chapter 5: The Research Design

5.1 Introduction

Chapter 4 generated propositions which encapsulated the research question. The objective of this chapter is to propose a research methodology which will at least introduce these propositions to testing. The chapter proposes the use of multiple case-studies as a means to analyse the alleged convergence of the German executive pay, in particular through the use of descriptive multiple case-studies and the process of pattern-matching.

The chapter is organised as follows. *Section 5.2* explains the philosophical approach of the research. *Section 5.3* highlights the ideas behind choosing case-studies. *Section 5.4* discusses the use of case-studies as a research methodology. *Section 5.5* presents a detailed description of the research design of the thesis, focusing on the selection of sample and data collection. *Section 5.6* discusses the methodological strategy adopted by the thesis, in particular the use of pattern-matching and the role of theory used in interpreting the findings. *Section 5.7* summarises the overall discussions and notes the limitations of the research design.

5.2 Philosophical Approach

Understanding the philosophical approach underpinning the research is important as it clarifies alternative designs and methods, identifying which one is more likely to work in practice (Easterby-Smith et al. 1991). When considering approaches for this research, the question arise as to whether the positivist or the interpretive (phenomenological) approach should be adopted. Both these approaches are briefly discussed here.

The positivist approach, arguably often designed as a quantitative research essentially believes that the subject under analysis should be measured through objective methods rather than being inferred subjectively through sensation, reflection or intuition. This approach stresses the need for the formulation of hypotheses which are to be verified and searches for causal explanations and fundamental laws, reducing the whole into the simplest possible elements in order to facilitate analysis (Easterby-Smith et al. 1991, Remenyi et al. 1998). On the other hand, the interpretive or phenomenological approach understands reality as holistic, and socially constructed, rather than objectively undermined. The interpretive approach which arose largely in reaction to the application of positivism in the social science asserts that researchers should not gather facts or simply measure how often certain patterns occur, but rather appreciate the different constructions and meanings people place upon their own experiences and the reasons for these differences. The interpretive approach thus tries to understand and explain a phenomenon rather than search for external causes for fundamental laws (Easterby-Smith et al. 1991, Remenyi et al. 1998).

Notwithstanding this long-standing debate, in reality both the positivism and the interpretative approach are not entirely different in terms of their impact on research and the generalisation of their findings. Remenyi et al. (1998) for instance highlights that both need to be replicated before any generalisation can be made and both need a convincing argument that the findings are valid before they can be accepted as a valuable addition to the body of knowledge. The conclusion being that ultimately, it is more useful to consider these approaches as complementary to each other as opposed to two opposite extremes. Thus, Esterby-Smith et al. (1991) observe that major scientific advances are not only produced by logical and rational application for a scientific method but also from creative thinking which exceeds the boundaries of existing ideas. Furthermore, while it is true that in its pure interpretation, the positivist approach is epistemologically different and quite incompatible with the interpretive approach, it is clear that this incompatibility is blurred and the differences unclear when it comes to actual research (Esterby-Smith et al. 1991).

The thesis shares this viewpoint. Consequently, the dominant philosophical approach underlying this thesis is a balance between the positivist approach and the interpretive approach. This approach can be seen where the positivist approach of developing propositions on the basis that they will be tested by evidence is combined with the interpretive approach where the use of multiple case-studies and in particular, pattern-matching provide the means of interpreting the various meanings contained in the details of case-studies.

5.3 Justification for Choosing Case-Studies

This section provides the background for choosing multiple case-studies as a research design. Firstly, it highlights the difficulties of obtaining and assembling data on executive pay, in particular in Germany. Secondly, it explains the difficulties of using conventional statistical methods when performing cross-country comparisons involving German executive pay. Thirdly, it describes the advantages of using case-studies as a research methodology in this study. Finally, it provides examples of where complementary studies have shed light by taking a similar approach

Availability of Executive Pay Data

Continued fascination with executive pay issues has resulted in a number of studies comparing the level and structure of executive pay internationally. While the number of cross-country comparisons has grown, the number of research is, however, still relatively small in relation to the level of interest in the area of executive pay (Murphy 2000). This is attributed in some part to the difficulties of obtaining and assembling the requisite data with most studies citing data limitations such as: executive pay measurements varying according to the country, legal, and accounting systems (Conyon and Schwalbach 2000b), unavailability of micro-data such as those relating to individual companies (Conyon and Schwalbach 2000a), and availability of survey data which are non comparable (Murphy 2000).

The problem particularly arises when between-country comparisons involving Germany are undertaken. Firstly, German law only requires the disclosure of the aggregate amount paid to the group of top executives. Secondly, because executive share option schemes were only made legal in 1998, there exist no national body collecting aggregate statistics and no publicly available database listing executive stock options information. Faced with such data limitations, between-country comparisons of executive pay incorporating Germany have used methods which focused on narrow definitions of compensation which excluded stock option schemes (see Conyon and Schwalbach 1999, 2000a, 2000b), merged different databases (see Conyon and Schwalbach 2000a) and relied on non-comparable survey data (see Abowd and Bognanno 1995). While these researches successfully used conventional statistical methods to provide important results concerning executive pay structures and levels across countries, between-country comparisons involving stock option schemes in Germany have so far remained problematic.

Disclosure of executive pay information is generally poor in Germany. German companies adopting executive stock option schemes only have to announce their intention in the Federal Bulletin (*Bundesanzeiger*) without disclosing details of their schemes. Where there is a small percentage of stock floating and inactive trading, insiders (including banks, employees, and interlocking shareholders) are informed of the details of executive pay by virtue of their close relationship with the board of directors rather than via information being made public. This is consistent with the limited role of monitoring played by outside investors in bank-centric settings and the finding that governance transparency

is significantly and negatively related to the importance of bank financing to external equity financing (Bushman et al. 2003).

Information on executive pay only became public recently when German corporations started to issue Level II and III ADRs on the American Stock Exchanges. Issuers of ADRs are required by the SEC to file proxy statements disclosing details about their stock option plans, although this is limited to the aggregate remuneration for the whole board of directors, in the financial accounts under notes to the balance sheet and profit and loss statement. The availability of previously undisclosed data presents a way of finally shedding some light into Germany's adoption of executive stock option schemes. However, the adoption of executive stock option scheme by German companies is at an early stage, and the available complete data only relates to one financial year. Furthermore, German culture's secretive approach towards business information vis-à-vis outsiders makes data collection very much like detective work.

For example, although German companies had filed in information with the SEC, they did not always provide access to their SEC filings (file 20k and 6f) on their corporate websites. Pieces of information could only be obtained from various files obtained from the US SEC websites and had to be confirmed via telephone calls made to the company secretaries and investor relations officers in these German corporations.

Difficulties of using Conventional Statistical Methods

A consideration of executive stock option schemes as a single governance innovation within a German system switches the level of analysis from a system over time to firms in cross-sections. The main problem in adopting conventional statistical methods to carry out cross-section comparisons is that although 43 M-DAX 100 firms had declared at least the existence of executive stock option schemes by 2002 in shareholder annual general meeting invitations, only ten companies provided information on executive pay in their proxy statements for the US SEC as a result of their Level II or III ADR listings. A further eleven companies disclosed details of executive stock option schemes because they had voluntarily adopted US GAAP. With some firms using GAAP and ADRs, even fairly rudimentary executive stock option scheme information is so far available for only fourteen of the forty-three large German firms disclosing the existence of executive stock option schemes. Even with these disclosing firms, published information was difficult to ascertain and had to be supplemented in many instances by direct enquiries to company secretaries.

A sample of forty-three quoted firms and fourteen disclosing necessary details for tests on the research propositions are quite inadequate for proper testing. Furthermore, the prevalence and characteristics of executive stock option schemes in the USA and UK have been shown to vary consistently by size of firm and industry (Murphy 1999). Applying these controls further reduces the sample size to seven, which results in potential findings being statistically insignificant. Clearly, a larger sample is necessary for

conventional statistical methods to provide statistically significant findings after applying controls for size, industrial classification and possibly firm performance.

Advantages of using Case-studies

For reasons mentioned in the above sub-section, this thesis proposes a research design which will be able to tentatively test the propositions and present 'theoretical useful' findings even where the sample size is small, rather than one which will offer statistically representative findings. Indeed, the consideration of case-studies as a research design is also important given that the adoption of executive share options by German corporations cannot be construed as a phenomenon readily distinguishable from its context. The research would benefit from using an explorative case-study method which purports to study actual awards of stock options by corporations embedded in German national institutions and culture.

There is an argument that case-studies are superior to cross-unit studies insofar as they promise greater theoretical yield; i.e. case-studies are theoretically fecund in a way that cross-unit studies are not. This thesis argues that case-studies are not necessarily more theoretically useful, but are often more useful at the stage of theory generation as explained by Yin (1981) and Eisenhardt (1989) and where the sample size is too small for the findings to be statistically significant.

Indeed, the vagueness of the research subject becomes an advantage, rather than a disadvantage, when the object of the research is explorative, and the aim is to unearth and identify many plausible causes or hypotheses rather than to definitely prove or disprove a single causal argument. By 'casing' – defining the topic, including the hypotheses of primary interest, the outcome, and the set of cases that offer relevant information through research propositions - case-studies are able to challenge the conventional notion that theories are hatched fully formed (Ragin 1992, 1997, 2000).

A further advantage of using case-studies is that deviant instances or cases that do not appear to fit the pattern or trend are not treated as outliers as they would be in statistical probability-based analysis. Rather, deviant or exceptional cases are taken as challenges for further elaboration and verification of an evolving conclusion. In a sense, the deviant case analysis would strengthen the general conclusion by showing that it takes exceptional circumstances to override the constraints of the situation (Miles and Huberman 1994).

Applying this to the research, the tentative conclusions obtained from performing explorative case-studies will be useful to further research where the findings obtained may lead to the refinement/modification of the developed propositions and hence the development of a set of testable hypotheses. This will be crucial for when the sample size increases following a higher level of disclosure in Germany in future. For instance, when sample size increases, the development of testable hypotheses will allow regressions to be performed with size, industry, performance, and country dummies as independent

variables. Findings of significant coefficients on the German country dummy may denote rejection or otherwise of the hypotheses and conclusions on whether German executive stock option schemes represent convergence on US-style governance could be made. Alternatively, t-tests may be performed on the means of a smaller sample consisting of two sets of German and US companies data which are big enough to control for size and industry by obtaining matching pairs similar to the study carried out by Combs and Skills (2003)

Other Similar Studies

The lack of disclosure on German businesses' strategies, including on executive pay in Germany, has motivated a number of interesting studies that necessarily involved no conventional statistical methods. Berndt (1998) investigated German firms' strategic response to the growing dependence on the international financial capital by examining three specially selected case-studies in the form of Veba AG, RWE AG, and Thyssen AG. Bernhardt (1999) analysed the efficiency of German stock option plans by carrying out detailed case-studies involving the characteristics of stock option schemes adopted by Daimler Benz AG, Henkel KGaA and SGL Carbon AG. Lane (2000) examined whether the German model of capitalism was eroding by undertaking case-studies involving six German companies in highly internationalised industries with the expectation that the case-studies will reveal the tension between internationalisation and embeddedness. To be sure, analyses of executive pay involving Germany invariably exclude long-term

compensation (Conyon and Scwalbach 2000, Eriksson 2000), are based on small samples (Allcouffe and Alcouffe 2000) or small, variable samples (Ferrarini et al. 2003).

5.4 Case-Study as a Research Methodology

Adopting the use of case-studies as a research methodology requires a discussion of case-studies design. Consequently, this section examines the use of case-studies in more depth. Yin (1994:13) defines a case-study as, ‘...an empirical enquiry that investigates a contemporary phenomenon within its real-life context and where the boundaries between phenomenon and context are not clearly evident’. At the simplest level, case-studies are descriptive accounts of one or more cases. Less simply, case-studies offer a unique way in which processes are isolated, providing a strong basis for prevailing explanations and ideas to be tested, offering the strengths of experimental research within natural settings (Hakim 2000).

Indeed experimental isolation is the alternative to randomised assignments to treatments. Where randomisation purports to control an infinite number of variables and rival explanations without specifying what any of them are; experimental isolation specifies the factors to be excluded or included and identifies one or more social setting in which they are present or absent (Campbell and Stanley 1963, Yin 1994). Strategic case-study assesses the evidence for a conclusion by looking at the most favourable illustration or by

studying deviant case which suggest that the exception disproves the rule, requiring theory to be redefined or reconsidered.

Case-studies can be exploratory, descriptive or explanatory (Yin 1994). An explanatory case-study is aimed at defining the questions and hypotheses of a subsequent study or determining the feasibility of the desired research procedures. A descriptive case-study presents a complete description of a phenomenon within its context. An explanatory case-study presents data bearing on cause-effect relationships – explaining which causes produced which effects. Case-study designs can also focus on a single case or multiple cases. A single example usually forms the basis for research on typical, deviant or critical cases. Multiple case designs extend to several settings to achieve replication of the same study in different settings to compare and contrast different cases. Hakim (2000) notes that confidence in the generalisability of the results in case-study design increases with the number of cases covered, with the greatest proportional gains being achieved when the number of cases is increased from one to two, three or more. It is important to note here that with case-studies, generalisability of the results is not extended to the population but rather to the theory where the logic underlying multiple cases is replication logic rather than any sampling logic (Yin 1981, 1993, 1994).

5.5 Research Design of this Thesis

Yin (1981) writes that in designing case-studies, it is important to consider key design issues such as (1) identifying the major unit of analysis; (2) opting for a single case or multiple cases; (3) selecting appropriate cases and (4) choosing appropriate data collection strategies. Consequently, in discussing the research design of this thesis, these issues are dealt with in this order here.

5.5.1 Unit of Analysis

The definition of what the unit of analysis is of vital importance in designing case-studies. Dubin (1978) stresses that only when units are put together, with their correspondent interactions, do they facilitate the generation of theories. Different types of units can be considered from individuals, to organisations, small groups or events. In this thesis, where German national institutions and culture are expected to influence the structure of executive share option schemes adopted by large German corporations, German corporations with executive share option schemes will be the main unit of analysis.

5.5.2 Single Case vs. Multiple Cases

A research design which incorporates multiple case-studies will allow replication logic. Cross case-studies allow an incomparable in-depth study to be undertaken by analysing and comparing German executive stock option schemes to those in the USA and UK. With the research being carried out where it is naturally occurring, actual interconnected relationships may be traced over time, allowing a closer examination for specific

outcomes to be made (Yin 1994, Denscombe 1998). Furthermore, by undertaking a cross-site multiple case-studies approach, holistic data from German, USA and UK will be preserved, enabling the comparative research to recognise and identify the local variation affecting the outcomes (Marshall and Rossman 1999).

5.5.3 Selecting Appropriate Cases for Sampling

Selecting specific cases are important where collecting data from a complete census of the wider population is impractical. The criteria to selecting cases are a matter of discretion and judgment, convenience, access and geographic proximity (Yin 1994). For the purpose of this thesis, an important criterion hence was attaining a sample of information-rich cases (Patton 1990) constituting samples which are observable and theoretically useful cases by filling conceptual categories (Eisenhardt 1989).

The research thus focuses on choosing large companies with executive stock option schemes on the basis of availability of information and ability of finding suitable matches. Because the research is concerned with the convergence of German executive pay, where 'convergence' is regarded as practices adopted by the Anglo-American companies of USA and UK, it was natural to chose larger companies from Germany, USA and UK. Out of this, the main starting point was the development of a database comprising the entire population of large German companies in the M-DAX 100 index with (a) executive stock option schemes, and (b) US share quotations having issued GDRs and/or ADRs, or (c) US GAAP accounts.

Table 5. 1: M-DAX 100 Firms with ESO disclosure and details (FY 2002)

Dax 100 Firms: Existence of ESO Disclosed In 'Bundesanzeiger'		Detailed Disclosure through Adoption of US-GAAP	Detailed Disclosure through ADRs (Level II or III)	Rest: No Detailed Disclosure of Existing ESO
{43 Companies}		{11 Cos}	{10 Cos}	{29 Cos}
1	Adidas-Salomon AG			/
2	Altana AG			/
3	Baader Wertpapierhandelsbank AG			/
4	Babcock Borsig AG			/
5	BASF AG	/	/	
6	Beate Uhse AG			/
7	Bilfinger+Berger Bauaktiengesellschaft			/
8	Buderus			/
9	Cargolifter AG			/
10	Celanese AG			/
11	Continental AG	/		
12	Daimler Chrysler AG	/	/	
13	Deutsche Bank AG		/	
14	Deutsche Telekom AG		/	
15	Deutz AG			/
16	Dresdner Bank AG			/
17	ESCADA AG			/
18	FAG Kugelfischer Georg Schäfer AG			/
19	Fresenius Medical Care AG	/	/	
20	Gold Zack AG			/
21	Heidelberger Druckmaschinen AG			/
22	Henkel KgaA			/
23	HOCHTIEF AG			/
24	Jenoptik AG			/
25	Kamps AG			/
26	Lufthansa AG			/
27	Merck KgaA			/
28	Metallgesellschaft AG (MG Technologies)	/		
29	Nordeutsche Affinier AG			/
30	Phoenix AG			/
31	Puma AG			/
32	RWE AG			/
33	SAP AG	/	/	
34	Schering AG		/	
35	Schwarz Pharma AG	/		
36	SGL Carbon AG	/	/	
37	Siemens AG	/	/	
38	SIXT AG			/
39	TECIS Holding AG			/
40	VCL Film + Medien AG			/
41	Veba AG (E.ON)	/	/	
42	Volkswagen AG			/
43	Vossloh AG	/		

Out of the one hundred companies short-listed, forty-three had in financial year 2002 announced at least the existence of executive stock option schemes in the *Bundesanzeiger*. Out of forty-three, *eleven* have voluntarily adopted US GAAP accounts while *ten* provided information on executive pay in their proxy statements to the US Exchange Commission as a result of their Level II or III ADRS or GDRs. Because some of these companies have both GAAP and ADRs/GDRs, the total number of DAX 100 companies disclosing details of executive stock option schemes is only fourteen out of forty-three as illustrated in Table 5.1.

Testing the propositions by comparing these fourteen companies with the hundred biggest firms of the USA and UK was not appropriate given the fact that the prevalence and characteristics of senior executive rewards in the USA, UK and Germany have been found to vary significantly according to the size of the firm (Rosen 1992, Murphy 1999, Conyon and Schwalbach 2000b); and senior executives rewards in the USA and UK have been found to vary significantly to its industrial classification (Murphy 1999). For this reason, it was decided to match individual firms in Germany with approximately equivalent US and UK firms in terms of size and industry in a process that is the case-study equivalent of using control variables in regressions (Combs and Skill 2003). Where other relevant criteria were found in the literature (for example, Combs and Skills (2000) matched for additional variables such as R&D intensity, diversification, and foreign market activity), it was decided to restrict the analysis only to size of firm and industrial classification because the German sample was already very small and it was difficult to

match firms on more than these two criteria and these criteria have been found to be the most important influences on executive pay packages (Murphy 1999).

Table 5.2 Selecting case-studies German/US/UK companies

German Cos.	Industry	Sales (\$ Mil)	US Companies	Sales (\$ Mil)	UK Companies	Sales (\$ Mil)
BASF	Chemicals	33,989	E.I. DuPont de Mours	28,268	No match found	n.a.
Continental	Manufacturing	11,375.5	The Good Year Tire and Rubber	14,417	No match found	n.a.
DaimlerChrysler	Automobiles	152,446	Ford Motors	170,064	No match found	n.a.
Deutsche Bank	Banking	77,755	JP Morgan Chase	60,065	HSBC Holdings	n.a.
Deutsche Telekom	Telecom.	33,126	World Com	39,090	British Telecom.	25,340
E.ON	Conglomerate	77,904	General Electric	129,853	No match found	n.a.
Fresenius Med. Care	Medical Care	4,201	No match found	n.a.	No match found	n.a.
MG Technologies	Multi-Industry	7,783	Textron	11,589	Johnson Matthey	5,954
SAP	Commercial Services	4,739	AOL	4,777	Reuters Group	n.a.
Schering	Drugs	4,218	No match found	n.a.	No match found	n.a.
Schwarz Pharma	Healthcare	337	Endo Pharma Holdings	197	No match found	n.a.
SGLCarbon	Manufacturing Industrial Parts	1,189	Crane	1,491	T.T. Electronics	1,114
Siemens	Electrical / Electronics	68,387	No match found	n.a.	No match found	n.a.
Vossloh	Automotives Equipment	805	Wabtec	1,028	Henlys Group	1,318

Obtaining a double coincidence of size in terms of sales turnover and industrial classification was still problematic even after restricting the analysis to only these two criteria and matching individual German firms with equivalent US and UK firms. For example, it was not possible to obtain any satisfactory matches for the German companies until the decision was made to: (i) consider US and UK matches with sales turnover that ranged from 50-200% of the German firms and (ii) consider the broad industrial classification used by Fortune, Forbes, Business Week, Financial Times and Hoover when classifying companies. Indeed, it was only following this decision that the two sets of only seven matched pairs of firms comprising of one set of German/US companies and one set of German/UK companies based on the financial year ending 2000 (2000/2001) were finally produced (see Table 5.2).

Although suitable matches were found for the selected German companies, two of the resulting pairings appear to be imperfectly matched in terms of their business activity. That is, although AOL and SAP have been classified in the same industry sector (commercial services), SAP's main business of providing software and associated services is different to AOL's business of providing web-related services and internet hosting. Additionally, while both Deutsche Bank and JP Morgan Chase have both been classified as banks, JP Morgan Chase is far more an 'investment bank' compared to Deutsche Bank's, 'universal bank'. This is perhaps inevitable given the decision of adopting very broad and thus crude industry classifications to obtain the German/US/UK matches.

Because case-studies use a theoretical sampling logic, the question as to whether the sample is big enough to be statistically representative of a total population is not a major concern here. Companies selected are significant in relation to the research question because they enable key comparisons to be made, testing and developing theoretical propositions given that they contain certain characteristics of criteria. Theoretical sampling thus does not expect sample to be a representative of the wider population contrasting with probability sampling which is used to generate empirically representative samples.

5.5.4 Choosing Appropriate Data Collection Methods

The proposed source of data collection is that of documentation, consisting of multiple published sources for example in the form of individual company annual reports, proxy statements filed with the American SEC, company annual reports, archives, financial reports from the press and financial analysts, books, journals and web-site pages as to promote the achievement of 'triangulation' (Denzin 1970). This section explains why data will be collected this way and discusses the issue of credibility relating to the use of documentary or published evidence.

As previously mentioned, detailed data regarding awarded executive stock option schemes are simply not available in other forms. Annual reports and proxy statement however provide a novel way of gaining access to information relating to German executive share option schemes in particular, which is otherwise unobservable. Additionally, where annual reports and proxy statements represent meaningful

constituents of executive stock option schemes adopted by companies, they can be considered to be more consequential than verbal utterances particularly where executives hesitate to disclose information about their pay. Indeed, Hakim (2000) writes that administrative records provide more reliable information than interviews on topics such as annual earnings.

Regarding the credibility of documentary evidence, Mason (1996), asserts that many qualitative researchers see the analysis of documents as a meaningful and appropriate method in the context of research strategy. That observations and interviews become data when they are transformed into text emphasises the inherent credibility of documentary data. Indeed, previous studies comparing cross-country executive pay comparisons have also mostly used data sourced from published sources. For example, studies using aggregate figures relied on databanks or surveys compiled by International consultancies such as Tower Perrin, European Independent Remuneration Network or EI-RN and other consultancies. Surveys published by Forbes, Business Week and Wall Street Journal although less comprehensive have also been utilised (Murphy 2000a). On the other hand, where data are required on a more micro level, published reports in the form of company annual reports and proxy statements filed with the American SEC were utilised whether obtained directly or through secondary sources such as DataStream, PriceWaterhouseCooper's Corporate Register, and Compustat ExecuComp database.

5.6 Analytical Strategy

There are various ways to analyse the data contained in the case-studies. Miles and Huberman (1994) suggest alternative analytic techniques such as using arrays to display data, creating displays, tabulating the frequency of events and ordering the information amongst others. Yin (1981, 1994) recommends performing either pattern-matching, explanation building or carrying out a time-series analysis. He notes that often, conclusion drawing from case-studies is impeded because the theoretical or logical assumptions underlying the research are left unstated. The analysis must be able to recognise and address the theory which is often only implicitly constrained in the analysis for it to draw conclusive findings. For this reason, pattern-matching is helpful where it explicitly spells out a logic model or theoretical pattern as to how the result pattern is expected. This need becomes especially important when there is a need or desire to place the findings from a single evaluation into a wider comparative context or substantively critical (Yin 1993). Indeed, Trochim (1989) considers pattern-matching as being one of the most desirable techniques for analysis where the existence of theory-pattern can be said to enhance the internal reliability of the study.

Pattern-matching is essentially a process in which variables are compared between what is theorised and observed (Yin 1993, Combs and Skill 2003). Effective pattern-matching requires the clear prediction of two types of idealised outcomes based on developed theory (Yin 1993). Failing to specify a priori the critical outcomes to be described will result in circular reasoning with the final outcome constituting a contaminated combination of what might have been expected and what is found (Yin 1993). Predicted pattern of events thus plays an important part where they form a series of benchmarks against

which actual data are compared and analysed. The research thus proposes to analyse data by carrying out pattern-matching using the theoretical lens of neo-institutional theory and translation theory as elaborated in Chapter 4. Performing the pattern-matching procedure requires the completion of firstly constructing a theory-pattern, secondly developing a case-study pattern and then performing pattern-matching. Where each of these steps is quite extensive, they will be dealt exclusively Chapters 6, 7 and 8 respectively.

With the outcomes will be specified in the theory-pattern, data collection will be carried out to gather evidence to confirm or disconfirm the theory. At the same time, unanticipated findings are not precluded and revelatory or important information found in addition to the anticipated outcome will still be collected and analysed. The prediction of initial outcomes nevertheless will provide a major support in structuring the data collection and prevents a data collection which is never ending.

5.7 Conclusion

The chapter started by explaining the philosophical approach of the research. It then discussed the reasons for choosing explorative case-studies as the research methodology touching on the availability of German executive pay data, and the difficulties associated to performing conventional statistical methods. From there, it highlighted the advantages of using case-studies, and noted other studies using similar approach in the area of

corporate governance and corporate strategies in Germany. Following this, the proposed research design is presented in detail, considering matters such as the unit of analysis, multiple cases, choice of sampling, and data collection methods.

It has to be mentioned however, that while the use of multiple case-studies is proposed here, there exist some clear limitations. For example, Yin (1994) warns that there is a risk of some interpretive discretion on the part of the researchers when conducting case-study research, which might create problems. Researchers may be overly restrictive in claiming a pattern to have been violated or overly lenient in deciding that a pattern has been matched. Acknowledging that there is no precise way of setting the criteria for comparisons, the thesis attempts to improve the quality of pattern-matching by developing semi-quantitative indicators when testing the propositions as will be seen in Chapter 6.

More significantly, the main disadvantage of this design is that the scope and content of the studies are constrained by the nature of the data currently available. On the other hand, the availability of new information on German executive stock option schemes provides crucial means for which theory relating to German executive pay can be finally tested. By using explorative case-studies and the process of pattern-matching, the research will be able use the findings obtained to further modify and improve the propositions. This will lead to the development of a set of testable hypotheses which will be crucial for when sample size increase where a higher level of disclosure as is expected to occur in Germany in the following months and years. For instance, with a particular executive stock option scheme character taken from Hypothesis 1 to Hypothesis 5 as the

dependent variable, regressions could proceed with size, industry, performance, and country dummies as independent variables. Significant coefficients on the German country dummy would denote rejection or otherwise of Hypothesis 1 to Hypotheses 5 and hence conclusions on whether German executive stock option schemes represent convergence on US-style governance. An alternative proposal is to compile two sets of data of German and US companies which are big enough to obtain matching pairs to control of size and industry and carry out t-tests to the means of the samples similar to the study carried out by Combs and Skills (2003). Finally, where decisions relating to research design have to consider time-scale and costs factors (Hakim 2000), the proposed research using multiple case-studies and pattern-matching and obtaining data from documentary source appear equally feasible and appropriate.

Chapter 6: Constructing a Theory-Pattern

6.1 Introduction

The previous chapter has been important in developing the research framework for this thesis. By proposing the research design of multiple case-studies, and introducing the idea of using 'pattern-matching' as an analytical strategy. Pattern-matching essentially compares an empirical based pattern with a predicted one (Trochim 1989, Yin 1994) and if these patterns are found to have coincided, the case-study's internal validity is considered to be strengthened (Trochim 1989, Yin 1994). Thus, no pretensions are made towards full empirical testing, but the methodology can advance theory and understanding. Indeed, pattern-matching is regarded as one of most desirable strategies when theory is being examined using case-studies (Trochim 1989, Yin 1993, Cresswell 1994, Yin 1994).

Performing the pattern-matching procedure involves the completion of three separate procedures. The first procedure involves constructing a theory-pattern by creating a pattern of events involving predicted variables based on the specified theory, to be used as a benchmark against which actual data can be compared. The second procedure involves constructing a case-study pattern by collecting and collating information regarding real events from the case-studies according to the pattern set out in the first stage. Finally, the third procedure engages pattern-matching, by matching both sets of patterns and analysing whether the events in the case-study patterns correspond with the

events in the theory-pattern. Because each of these steps are quite extensive, this chapter will solely focus on the first stage which is constructing a theory-pattern, leaving the remaining stages to be dealt with by subsequent chapters.

6.2 Constructing a Theory-Pattern

This thesis is concerned with examining the alleged convergence of German executive pay on an American template, as part of a general convergence process. It predicts that in the face of German national culture and institutions, a long-term absence of 'real' convergence, with governance convergence being largely dependent and human resource strategies embedded in antecedent German culture and institutions, German executive stock option schemes will remain essentially 'German'. Rather than being concerned with establishing causal inferences, this investigation is concerned with discovering the extent to which German executive stock option schemes really correspond with governance convergence.

Constructing a theory-pattern consisting of variables involves articulating variables in operational terms (Yin 1994). Operationalising variables is however, usually fraught with difficulties; denoting variables not only involves a high degree of interpretation, the construction variables also have to closely resemble the variables available in case-studies and be easily measurable, thereby promoting a more exact pattern-matching procedure. Where this thesis is primarily concerned with comparing the characteristics of

German executive stock option schemes to US and UK schemes, attempts are made to minimise these difficulties by constructing variables which are semi-quantitative in nature, based on the specific characteristics of actual schemes adopted by corporations.

In Chapter 4, a set of five research propositions was proposed, formulated from the chosen theoretical framework and predicting specified outcomes for German executive stock options in comparison with US and UK executive stock options. Constructing the theory-pattern for the investigation into German executive stock option schemes, these propositions are used as the basis for constructing pattern by: firstly, identifying the predicted variables in all propositions; secondly, defining them when they need to be interpreted; and thirdly, operationalising them so that they form a structure for data collection and organisation, for case-study analysis or creating case-study pattern, as well as aiding the final matching procedure. This practice begins with Proposition 1.

Proposition 1 (P1): *Executive share option schemes in German firms may be expected to be more egalitarian, cascading further down a firm's vertical hierarchy, to include a greater proportion of total labour force than in the USA and UK.*

(i) From P1, the following variables are identified:

- Executive stock option schemes in German/US/UK firms
- A greater proportion of the total labour force

(ii) Where the following variables need to be interpreted, they are defined below:

- Executive stock option schemes in German/US/UK firms: the single most important share based scheme that applied to main board directors in German/US/UK corporations for the financial year 2000, in terms of the firm's proportion of shares involved.
- Senior executives: Senior executives 'awarded' share based rewards (as opposed to 'granted') during the financial year 2000. Although there seems to be little difference between the literal meaning of 'awarded' and 'granted', the thesis treats these terms as distinct from one another when referring to the actual practice of awarding incentives. Whereas stock options are usually awarded to executives by corporations during the financial year, stock options are, for most parts, only granted, vested and exercised later, when conditions are satisfied.

Note: where the above variables appear in all of the propositions, they will not be defined here again.

(iii) Operationalising 'a greater proportion of the total labour force than in the USA and UK' involve:

- Assessing the percentage number of labour force awarded stock options under German, US, and UK schemes.
- Making a cross-comparison of the percentage number of the labour force awarded stock options under the German/US and German/UK schemes. Should the case-study

pattern provide evidence that German executive stock options cover a lower percentage number of the labour force awarded stock options compared to US or UK schemes, the theory predicting that German executive stock options are more egalitarian than US or UK schemes will be tentatively weakened.

Proposition 2 (P2): *Executive stock option schemes in German firms may be predicted to award lower rewards in total – involving a smaller proportion of firms' total issued capital than in the USA and UK.*

(i) From P2, the following variable is identified:

- smaller proportion of firm's total issued capital

(ii) Operationalising 'smaller proportion of firm's total issued capital' involves:

- Assessing the percentage figure of total share capital awarded to senior executives by German, US and UK executive stock option schemes.
- Making a cross-comparison of the percentage figures of total shares awarded by German/US and German/UK executive stock option schemes. Should the case-study pattern provide evidence that German executive stock option schemes award a higher percentage of total share capital compared to US or UK schemes, the construct-theory predicting that German firms award lower rewards in total compared to US and UK will tentatively be less supported.

Proposition 3 (P3): *With low levels of executive power in German subject to a degree of collective control, the attachment of quantitatively more performance conditions to executive stock option schemes can be predicted in comparison with the USA and UK.*

(i) From P3, the following variable is identified

- Quantitatively more performance conditions

(ii) Operationalising 'quantitatively more performance conditions' involves:

- Determining the number of performance conditions attached to German, US and UK executive stock option schemes.
- Making a cross-comparison of the performance conditions attached to German/US and German/UK executive stock option schemes. Should the case-study pattern finds German executive stock option schemes usually attaching a lower number of performance conditions to their options compared to US or UK schemes, then the construct-theory predicting that German executive stock option schemes are subjected to a tighter degree of collective control will be tentatively diluted.

Proposition 4 (P4): *German executive stock option schemes will employ qualitatively stricter performance conditions than comparable schemes in USA and UK.*

(i) From P4, the following variable is identified:

- Qualitatively more performance conditions

(ii) Operationalising more performance conditions involves:

- considering the strictness of performance conditions attached to German, US and UK stock option schemes using the criteria below which is based on New Bridge Street's (1996) ranking of the stringency of performance indicators.

From less stringent to more stringent:

- no condition (i.e. naked option)
- exercise price adjusted for rate of inflation
- stock price indexed (outperform stock price)
- stock price indexed to sector (outperform index)
- idiosyncratic peer group comparison
- market based conditions e.g. total return of a stock to an investor (TSR)
- accounting based conditions e.g. earnings per share (EPS)
- additional accounting based conditions e.g. pre-tax dividend income and income from dividends reinvested in underlying shares added to appropriate rate of return

Note: EPS is regarded as stricter than TSR because calculating TSR involves making subjective decisions about the treatment of dividends and variations in share capital through rights issue. On the other hand, EPS figures are measured once a year, with fewer opportunities for manipulation. This criteria, while has been used extensively, is

admittedly more contentious than suggested. For example, relying on EPS figures assumes that financial accounts do actually reflect performance when in reality they are subjected to manipulation. In this instance, TSR may prove to be a better indicator of performance particularly if markets are believed to be efficient and share prices do reflect company's performances.

- Making a cross-comparison between the performance conditions' ranking of the German/US and German/UK executive stock option schemes. Should the case-study pattern finds German executive stock option scheme attaching less stringent performance conditions to their options compared to US or UK schemes then the construct-theory predicting that German executive stock option schemes are subjected to tighter degree of collective control will be tentatively undermined.

Proposition 5 (P5): *Corporate governance in Germany will produce executive stock options of longer qualification periods imposed before option can be exercised, than in the USA and UK.*

(i) From P5, the following variable is identified:

- Longer qualification period imposed before options can be exercised

(ii) Operationalising 'longer qualification period imposed before options can be exercised' involves:

- Determining minimum stock holding years in German, US and UK executive stock option schemes.
- Making a cross-comparison between the minimum stock holding years for German/US and German/UK executive stock option schemes. Should the case-study pattern finds that German executive stock option schemes attach shorter number of minimum stock holding years compare to US or UK executive stock option schemes then the theory predicting that corporate governance in Germany will produce longer termed executive stock option schemes will be tentatively weakened.

6.3 Conclusion

This chapter initiated the method of pattern-matching in relation to the study of the alleged convergence of the German executive pay. Where the procedure of pattern-matching involves construction theory-patterns and case-study patterns and matching theory and case-study patterns, this chapter only dealt with the first stage, leaving the second and third stage for Chapter 7 and Chapter 8.

This chapter highlighted the difficulties of constructing theory-pattern, noting that in practice, a high degree of interpretation is needed for theory to be unravelled into a pattern of events, or a series of distinct variables. In constructing the variables, the

approach of this thesis thus has been to minimise any potential difficulties, by formulating variables which are defined and based on executive stock option schemes characteristics and operationalise to contain some quantitative measure. Where variables have been unavoidably qualitative such as those relating to Proposition 4, which required a measurement for 'strictness of performance conditions', a subjective but established ranking order of performance conditions stringency was utilised. Now that the theory-pattern for the case-studies has been constructed, Chapter 7 will proceed by performing the second stage of pattern-matching: constructing case-study pattern.

Chapter 7: Constructing a Case-Study Pattern

7.1 Introduction

Chapter 5 proposed the use of descriptive case-studies and pattern-matching using details of German, US and UK executive stock option schemes as a means to analyse the alleged convergence of German, US and UK executive stock option schemes as a means to analyse the alleged convergence of German executive pay. Chapter 6 constructed the theory-pattern that forms the basis for the pattern-matching process. Building on this, Chapter 7 firstly aims to construct the case-study pattern by: collecting relevant information relating to the German/US/UK executive stock option schemes; arranging the information in the form of a database which will aid cross-comparisons; making cross-comparisons of German/US and German/UK executive stock option scheme details; and finally presenting the outcomes of the cross-comparisons in a pattern similar to theory-pattern.

This chapter is organised as follows. *Section 7.1* instigates the data collection process. *Section 7.2* assembles the database relating to individual German, US and UK executive stock option schemes under study and the database relating to paired German/US and German/UK executive stock option schemes. *Section 7.3* cross-compares German/US and German/UK executive stock option schemes details. *Section 7.4* presents the outcome to construct the case-study pattern. *Section 7.5* concludes the chapter.

7.2 The Data Collection Process

Chapter 5 found seven pairs of matching German/US and German/UK companies as case-studies. The task now is to collect relevant information regarding the selected companies' executive stock option schemes, which would allow the case-study pattern to be constructed. In the process of collecting information on companies' executive stock option schemes, it was discovered that some US and UK companies adopt more than one stock option scheme or share based reward for its senior executives. Where the research was conducted in early 2002, and the most recent published reports which were available related to the 2000/2001 period, it was thus decided that this thesis would only concern itself with the 'main' stock option scheme adopted by the company for the financial year 2000, where the 'main' stock option scheme was defined as the scheme which awards the highest proportion of shares to senior executives, or the scheme which only served the executive officers. Hence, only data relating to this scheme was collected in the data collection process. Additionally, a few companies in the UK were also found not to possess any form of stock option schemes, having replaced them with long-term incentive plans awarding only conditional shares i.e. conditional executive stock option schemes with zero exercise prices to senior executives. Another decision was therefore made: to consider the 'main' share-based reward scheme adopted by the company and compile data only relevant to this scheme.

For all of these schemes hence, the same set of information was targeted: the number of senior executives awarded stock options / conditional shares, the percentage of this to total company employees, the maximum number of shares underlying the options /

conditional shares awarded, the percentage of this to total company share capital, the description and number of performance conditions and the minimum qualification period attached to the schemes.

Under German law, German companies are only required to disclose total pay awarded to pay. Other information on executive pay, as previously mentioned is scarce and can only be obtained if the company has filed with the US SEC upon listing Type I or Type II ADRs or when the companies prepared their accounts in accordance to US GAAP. Consequently, data on German companies were obtained from piecing together information from company annual reports, and US SEC forms such as Form 10-F and Form 6-K. These documents are available because the Securities Exchange Act of 1934 requires that listed companies submit ongoing and interim detailed disclosures to the SEC. Form 20-F Annual Report is particularly detailed, with disclosures often being over fifty pages in length and information closely resembling that which is required to be disclosed by domestic US companies. Although this report need not strictly comply with the US GAAP, reports made by German companies can be particularly detailed where they have to be reconciled with US accounting and disclosure requirements.

Form 6-K is also an extensive report. An interim statement, it requires that German listed companies provide all information which was made public pursuant to the law in Germany and distributed to the local shareholders. An example of such information is the information contained in German's company agendas or managing directors' report to the shareholders in companies' general meetings. These reports often include details about

stock option programmes being adopted because of the requirement by *Aktiengesetz* that firms using contingent capital or buying back their own shares to issue stock options for executives have to inform shareholders. Interestingly, this information is not available in local report or on companies' websites. However, when the companies issue stock appreciation rights or stock options to its executives, and the underlying shares are bought by the companies from third party, *Aktiengesetz* do not require such information to be made public, on the basis that they do not impact on the ownership position of outstanding shareholders.

Data relating to US companies was gathered from company annual reports as well as financial results filed with the SEC, in accordance with Form 10-K, and the definitive proxy statements or 14A as they are commonly known. Every publicly traded US Company is required by law to file a proxy statement with the SEC within 120 days after the end of its fiscal year and must mail proxies to every shareholder before its annual shareholder meeting. The proxy statements contains a report of the compensation committee providing detailed information on salary, bonus, option grants, restricted stock awards and other perks for the company's chief executive and next four highest paid officers.

For UK companies, information was accumulated from company annual reports. Under the Company Accounts (Disclosure of Directors' Emoluments) Regulations 1997; The Listing Rules and UK Combined Code of Principles of Good Governance and Code of Best Practice, the detailed reporting of directors' share options in UK are provided in most company accounts in the remuneration report section of the directors' report.

Collecting data for individual German, US and UK executive stock option schemes / share based reward schemes was not without problems however. An example of this is the discovery that the number of individuals involved in stock option schemes for certain German, US and UK companies were not disclosed in any of the published records made available. Where this was the case, telephone calls were made to the companies' investor relations and in some instances directly to the company secretary him/herself to confirm the number of executives estimated to be involved in the selected share based reward scheme. Out of all the companies approached, only one company: SAP AG, refused to provide this information. The relevant data was eventually collected and compiled to create individual case-study database as described on the next section.

7.3 Constructing Case-Study Database

Yin (1994) stresses the importance of creating a database where he writes that documentation within the case-study should not only comprise the case-study report but also a formal and presentable database. The purpose of this is to allow the critical reader recourse to inspect the evidence directly that led to the case-study conclusions. Accordingly, subsection 7.3.1 provides an overview of the specific German, US and UK companies, and Appendix A records important and relevant information about their main share based reward schemes. This information is then picked up in subsection 7.4.2 where information collected is summarised to form a database which presents information along the lines of matched German/US and German/UK companies.

Deutsche Bank (Germany)

Deutsche Bank is one of the world's leading international financial service providers. The Bank's activities cover a full range of corporate and investment banking, private clients and asset management products and services with 2,099 facilities in over 70 countries worldwide. Deutsche Bank prepares its accounting and valuation methods in accordance to the International Accounting Standard (IAS) and prior to listing ADRs on the NYSE in Oct 2001, issued over the counter (OTC) ADRs. As such, for financial year 2000, Deutsche Bank was not required to file in Form 20-F with the US SEC. During financial year 2000, Deutsche Bank awarded its senior executives the rights to subscribe interest-paying convertible bonds under its Global Equity Plan. Selected executives included members of the board of management, executives in affiliated companies, regional managers, and the heads of service areas in Deutsche Bank's main office.

J.P. Morgan Chase (USA)

J.P. Morgan Chase is a financial holding company formed in 2000 by the merger of JP Morgan & Co. with The Chase Manhattan Corporation. The Company's activities are: investment banking, treasury and security services, investment management and private banking. During financial year 2000, J.P. Morgan Chase awarded its executive offices stock options under its Growth Performance Incentive Program. In 2000, five executive officers were awarded stock options to acquire up to 4,329,817 common stocks.

HSBC Holdings (UK)

HSBC Holdings is a banking and financial services organisation. The Bank's international network comprises approximately 7,000 offices in 81 countries and territories in Europe, the Asia-Pacific region, the Americas, the Middle East and Africa. HSBC provides a financial services such as personal, commercial, corporate, investment and private banking; trade services, cash management; treasury and capital market services; insurance; consumer and business finance; pension and investment fund management; trustee services; and securities and custody services. HSBC did not award any stock options to its executive directors and group general managers in 2000; instead, the bank continued its 1996 decision to award conditional shares (stock options with zero exercise prices) under its Restricted Share Plan 2000. In 2000, the remuneration committee proposed to the trustee of the plan that 264 executives be awarded in 2001 instead of 2000.

Deutsche Telekom (Germany)

Deutsche Telekom is the largest telecommunications company in Europe, and German's leading fixed-line phone operator, with about 57 million access lines. Deutsche Telekom's T-Com unit provides network access services and its T-Mobile International division serves wireless phone customers. The Company's T-Online subsidiary is Europe's leading ESP; and the Company's T-Systems division specialises in IT services. The German government owns 43 per cent of Deutsche Telekom. Deutsche Telekom's

accounting and valuation methods are prepared in accordance with Section 317 HGB and the generally accepted German standards. The Company listed itself on the NYSE by issuing Levels II ADRs in 1999. During financial year 2000, Deutsche Telekom awarded stock options to selected senior executives consisting of managing directors, managers below the board level and managers of domestic and foreign group company under its Stock Option Plan 2000. In 2000, 350 executives at Deutsche Telekom and its subsidiaries were awarded stock options.

WorldCom (USA)

WorldCom provides communications services which include voice, data, internet and international services to businesses and consumers. The WorldCom Group communications infrastructure connects 124 cities cross North American, Europe, Latin America and Asia. Of course, this company created a major corporate scandal in 2002, mainly associated with its executive pay and performance measurement. Nevertheless, it was still used as a match for Deutsche Telekom, representing US practices at 2000. In the financial year 2000, WorldCom awarded its executive officers stock options under its 1999 Stock Option Plan. In 2000, stock options under the plan were awarded to four executive officers.

BT (UK)

BT provides voice and data services in the UK and elsewhere in Europe. The Company consists of BT Retail, BT Wholesale, BT Ignite and BT Openworld. BT Retail and BT Wholesale address the UK consumer, business and wholesale markets, offering communication products and services, voice, data, internet and multimedia products and services, and communications solutions; BT Ignite provides business service solution provider, and BT Openworld is a mass market Internet business. In 2000, BT did not award any share-based rewards to its executives. BT Share Option Scheme had expired in January 1995 and was not replaced after the last options were granted in 1994. It did however, announce the introduction of a new share-based scheme in 2001, called BT Equity Incentive Portfolio. Because of the scheme involved awarding stock based compensation to BT's most senior executives, it was decided for the purpose of this research that the use of this scheme for the German/UK cross-comparison would be appropriate. In 2000, awards were granted to around 2,500 senior executives.

MG Technologies (Germany)

MG Technologies, formerly Metallgesellschaft is a multi-industry company-operating group with core competencies in technology, engineering and chemicals. The group provides plant construction, process and thermal engineering. Its chemical group makes and distributes explosives, plastics, advanced ceramics, specialty chemicals and pigments. MG Technologies started preparing its consolidated financial statements

according to US GAAP in 2000, but is not listed on the NYSE. In the financial year 2000, MG Technologies awarded its executive directors and group executives stock options under its Modified Stock Option Plan, originally launched in April 1998 while the Company was known as Metallgesellschaft AG. In 2000, 160 senior executives were awarded stock option rights.

Textron (USA)

Textron is a multi-industry company with five operating segments: aircrafts, industrial products, fastening systems, industrial components, and finance. In the financial year 2000, Textron awarded its executive directors, key executives and other employees stock options coupled with performance share units under its 1999 Long-Term Incentive Plan. The stock options are granted to executives based on the executive officers' functions and responsibilities, past and expected future performance, potential contribution to the Company's profitability and growth, and prior option grants. In 2000, 62 most senior executives received awards of stock options which were coupled with performance share units. 957 other senior executives received stock options without awards of performance units.

Johnson Matthey (UK)

Johnson Matthey is a multi-industry company with operations in four district units: catalysts and chemicals, precious metals, colours and coatings and pharmaceutical materials. It is also the sole marketing agent for Anglo-American Platinum, the world's largest platinum producer and makes active pharmaceutical ingredients, such as codeine. The Company operates in 34 countries worldwide. In the financial year 2000, Johnson Matthey awarded shares to its executive directors and other senior executives under its 1998 Long Term Incentive Plan (LTIP). In 2000, incentive shares were awarded to 1,650 senior executives.

SAP (Germany)

SAP is the leading provider of computer software used to integrate back-office functions such as distribution, accounting, human resources and manufacturing. Nearly 20,000 companies use its software and SAP continues to shift its huge customer base to its web-based software platforms. SAP is also expanding into related fields, including supply chain and customer relationship management. SAP's accounting and valuation methods have been conforming to US GAAP since 1999. SAP had listed itself on the NYSE by issuing Level II ADRs in August 1998.

SAP introduced share-based reward in the form of executive stock options for the first time in 2000 announcing its aim to attract, retain, and motivate senior managers and top

performers. Previous to this, in 1999, SAP's subsidiary, SAP American Inc.'s saw many of its top management including the president, chief executive officer and several vice presidents leave the company to join US based technology companies, which were known to offer hefty stock options to executive employees. In the UK, the general manager and deputy managing director also resigned to join rival technological companies. Under SAP's Long Term Incentive Plan (LTIP), executives can choose between receiving convertible bonds, stock options or 50 per cent of each. In 2000, the Company issued convertible bonds and stock options under the plan to its executives. However, it refused to reveal how many executives were awarded convertible bonds or stock options.

America Online (USA)

America Online (AOL) provides internet access to more than 35 million subscribers. The AOL proprietary network offers contents, communication tools, and online shopping, among other internet services. It also owns CompuServe Interactive Services, which has more than 2 million users and has operations in foreign countries. In 2000, AOL and Time Warner merged. During this time, each of the AOL's and Time Warner's executive officers was awarded stock options by their respective compensation committees under plans approved by the stockholder of either AOL or Time Warner and assumed by the Company as of the merger date and the terms governed by the plans and the recipient's option agreement. During 2000, AOL awarded stock options to its three executive officers.

Reuters (UK)

Reuters culls data from some 240 exchanges, over-the-counter markets, and contributing subscribers, and distributes it through various products to nearly 500,000 users globally. Reuters also provides news to online, broadcast, and print media. In 2000, Reuters did not award stock options to its executive directors and group executive directors but instead awarded share rights under its 1993 Long-Term Incentive Share Plan. In 2000, nine senior executives were awarded share incentives.

Schwarz Pharma (Germany)

Schwarz Pharma develops and markets innovative drugs for medical needs, focusing on neurology, urology, and cardiovascular diseases. The Company also invests in projects targeting diseases such as Parkinson's, restless legs syndrome, epilepsy, neuropath pain, overactive bladder / incontinence, and benign prostatic hyperplasia. The Company has a strong international presence with affiliates in Germany, the USA, Italy, Spain, France, Great Britain, Poland, and China, and licensing agreements in 50 other countries. Schwarz Pharma's accounting and valuation methods are prepared in accordance to US GAAP and the Company issued OTC ADRs in 1996. In 2000, Schwarz Pharma awarded interest bearing fixed-rate convertible bonds to its executive directors and other senior executives under its Stock Option Program 2000. In 2000, options for common shares were awarded to 500 senior executives.

Endo Pharma (USA)

Endo Pharma is a drug company specialising in products for pain management. The Company's best selling drugs include Percocet tablets, Percodan tablets and Lidoderm. The Company also makes generic equivalents of pain medications for which patent production has expired as well as making remedies for serious cough and congestion. In 2000, Endo Pharma awarded stock options to its executive officers and other senior executives under the amended and restated 1997 Stock Option Plans. In 2000, Endo Pharma awarded options to approximately 60 senior executives.

Cell Tech Group (UK)

Cell Tech Group is a drug company, which is a product of the merger of two R&D firms, Cell Tech and Chiroscience, and then a union with a drug developer, marketer, and distributor Medeva. Cell Tech specialises in producing drugs relating to autoimmune and inflammatory diseases, cancer, and pain and the ability to market them. The Company's research and development unit develops new pharmaceuticals and its pharmaceutical arm manufactures, markets, and distributes the drugs. In the financial year 2000, Cell Tech Group awarded its executive directors and senior managers stock options under its Executive Share Option Scheme 1999. In 2000, 508 senior executives were awarded options.

SGL Carbon (Germany)

SGL Carbon is a global manufacturer of graphite and carbon products, and electrodes used to melt steel scrap. The Company's customers range from members of the aerospace and automobile industries to chemical and energy companies. SGL Carbon's accounting and valuation methods are prepared in accordance with Section 317 HGB and the generally accepted German standards. The Company listed itself on the NYSE by issuing Level II ADRs in February 2000. In the financial year 2000, SGL Carbon awarded stock options to 153 of its executive board members, selected senior executives, executive board members of the group companies and senior executives of group companies.

Crane (USA)

Crane Company manufactures engineered industrial products. The Company's products have primary application in the aerospace, hydrocarbon-processing, petrochemical, power generation, and automated merchandising and transportation business. In the financial year 2000, Crane awarded selected senior executive stock options under its Stock Option Plan 1998. Crane's compensation committee has the discretion to determine the terms and the conditions of the stock options granted. The executives may also be granted 'reload options' under certain circumstances, after the exercise of all or a portion of options granted. The reload option entitles the executives to purchase a number of shares equal to the number of shares delivered in payment as part of the exercise piece of the

original option plus the shares delivered or withheld to satisfy tax liabilities associated with the exercise of the original option. In 2000, the Committee granted options to 199 of its senior executives.

TT Electronic (UK)

TT Electronic is a global manufacturing company making electronic components for automotive manufacturers. The company's electrical division manufactures generators, power and data transmission cables, uninterruptible power supplies, fasteners and connectors. In the financial year 2000, TT Electronics awarded stock options to 100 executive officers and selected senior executives under its 1996 Executive Share Scheme.

Vossloh (Germany)

Vossloh makes transport products, from locomotives and switch systems to fasteners for railway tracks. The Company also makes software for traffic management and railway design and lightning products and operates through more than 50 subsidiaries worldwide. Vossloh started preparing its accounting and valuation methods in accordance to US GAAP in 1999 and has no ADR listing. In the financial year 2000, Vossloh awarded its executive board members and selected executives of its company and subsidiaries stock

option plans under the Company's 1998 Long-Term Incentive Programme – ESOP. Eligible participants purchase shares of Vossloh stock and receive bonus options, granting them options to acquire the Company stock at the quoted market price. In 2000, 45 senior executives purchase stocks and receive bonus option.

Wabtec Corporation (USA)

Wabtec, formally Westinghouse Air Brake Technologies is a manufacturer of transport equipment producing parts for locomotives, freight cars, and passenger railcars. Webtec's transit segment supplies replacement parts and repair services to operators of passenger transit vehicles such as the Metropolitan Transportation Authority / New York City Transit. In the financial year 2000, Webtec awarded stock options to its senior executives who share responsibility in management, growth, or protection of the business under its 2000 Stock Incentive Plan. In 2000, five senior executives were awarded stock options.

Henlys Group (UK)

Henlys Group manufacturers commercial buses, school buses, transit buses, motor homes and touring coaches through its subsidiaries, which include Blue Bird, North America's largest maker of school buses. Henlys Group also has fifty per cent ownership in two North American bus and motor-home companies and makes buses and coaches

for European market through its 30 per cent stake in TransBus International. During financial year 2000, Henlys awarded its senior executives incentive shares under its Long Term Incentive Plan. Although the Company's stock incentive plan allowed awards of shares to be made to any full-time executive of the Group, the remuneration committee only awarded the three executive directors during 2000.

7.4 Constructing the Case-Study Pattern

This section constructs the case-study pattern. This process involves taking each pair of the German/US and German/UK companies and carrying out a cross-comparison in accordance to the theory-pattern constructed in Chapter 6. Hence, evidence pertaining to each German company will be contrasted to evidence of its matched US or UK Company as to whether the German executive stock option scheme has a:

1. **greater** proportion of the total labour force involved
2. **smaller** percentage figure of total issued shares under options
3. **greater** number of performance conditions attached
4. qualitatively **stricter** performance conditions
5. **longer** minimum qualification period

Carrying out these comparisons is straightforward with the exception of number 4, with some sort of ranking system required to provide an objective judgment. As specified in

Chapter 6, for this reason the adapted work of compensation consultants New Bridge Street (1996) will be used. Of course using this ranking means that it is assumed that stock market-based performance measures are less susceptible to manipulation by executives than accounting measures, and that TSR is less difficult to manipulate using new shares issues and dividend decisions than EPS. Sub-section 7.4.1 uses the information collected in the database in Appendix B and performs these comparisons and reports the findings.

7.4.1 German/US Companies

(1) Number of senior executives involved:

(i) Deutsche Bank's executive stock option scheme has a **greater** number of senior executives involved compared to JP Morgan Chase's scheme.

(ii) Deutsche Telekom's executive stock option scheme has a **greater** number of senior executives involved compared to WorldCom's scheme.

(iii) MG Technologies' executive stock option scheme has a **smaller** number of senior executives involved compared to Textron's scheme.

(iv) SAP's executive stock option scheme has an **unknown** number of senior executives involved compared to AOL's scheme.

(v) Schwarz Pharma's executive stock option scheme has a **smaller** number of senior executives involved compared to Endo Pharma's scheme.

(vi) SGL Carbon's executive stock option scheme has a **smaller** number of senior executives involved compared to Crane's scheme.

(vii) Vossloh's executive stock option scheme has a **greater** number of senior executives involved compared to Wabtec's scheme.

(2) Percentage figure of total issued shares under options:

(i) Deutsche Bank's executive stock option scheme has approximately the **same** percentage figure of total issued shares under option compared to JP Morgan Chase's scheme.

(ii) Deutsche Telekom's executive stock option scheme has a **smaller** percentage figure of total issued shares under option compared to WorldCom's scheme.

(iii) MG Technologies' executive stock option scheme has a **smaller** percentage figure of total issued shares under option compared to Textron's scheme.

(iv) SAP's executive stock option scheme has a **smaller** percentage figure of total issued shares under option compared to AOL's scheme.

(v) Schwarz Pharma's executive stock option scheme has the **same** percentage figure of total issued shares under options compared to Endo Pharma's scheme.

(vi) SGL Carbon's executive stock option scheme has a **greater** percentage figure of total issued shares under option compared to Crane's scheme.

(vii) Vossloh's executive stock option scheme has a **smaller** percentage figure of total issued shares under option compared to Wabtec's scheme.

(3) Number of performance conditions attached:

(i) Deutsche Bank's executive stock option scheme has the **same** number of performance conditions attached compared to JP Morgan Chase's scheme.

(ii) Deutsche Telekom's executive stock option scheme has a **greater** number of performance conditions attached compared to WorldCom's scheme.

(iii) MG Technologies' executive stock option scheme has a **greater** number of performance conditions attached compared to Textron's scheme.

(iv) SAP's executive stock option scheme has a **greater** number of performance conditions attached compared to AOL's scheme.

(v) Schwarz Pharma's executive stock option scheme has the **same** number of performance conditions attached compared to AOL's scheme.

(vi) SGL Carbon's executive stock option scheme has a **greater** number of performance conditions compared to Endo Pharma's scheme.

(vii) Vossloh's executive stock option has a **greater** number of performance conditions attached compared to Wabtec's scheme.

(4) Levels of strictness of qualities performance conditions attached:

(i) Deutsche Bank's executive stock option scheme has qualitatively **stricter** performance conditions compared to JP Morgan Chase's scheme.

(ii) Deutsche Telekom's executive stock option scheme has qualitatively **stricter** number of performance conditions attached compared to WorldCom's scheme.

(iii) MG Technologies' executive stock option scheme has qualitatively **stricter** performance conditions to Textron's scheme.

(iv) SAP's executive stock option scheme has qualitatively **stricter** performance conditions attached compared to AOL's scheme.

(v) Schwarz Pharma's executive stock option scheme has qualitatively **stricter** performance conditions attached compared to Endo Pharma's scheme.

(vi) SGL Carbon's executive stock option scheme has the **same** level of strictness for qualitatively performance conditions compared to Crane's scheme.

(vii) Vossloh's executive stock option has qualitatively **stricter** performance conditions attached compared to Wabtec's scheme.

(5) Qualifying period of the schemes:

(i) Deutsche Bank's executive stock option scheme has a **longer** qualifying period imposed before options can be exercised compared to JP Morgan Chase's scheme.

(ii) Deutsche Telekom's executive stock option scheme has a **longer** qualifying period imposed before options can be exercised compared to WorldCom's scheme.

(iii) MG Technologies' executive stock option scheme has a **longer** qualifying period imposed before options can be exercised compared to Textron's scheme.

(iv) SAP's executive stock option scheme has a **longer** qualifying period imposed before options can be exercised compared to AOL's scheme.

(v) Schwarz Pharma's executive stock option scheme has a **longer** qualifying period imposed before options can be exercised compared to Endo Pharma's scheme.

(vi) SGL Carbon's executive stock option scheme has a **longer** qualifying period imposed before options can be exercised compared to Crane's scheme.

(vii) Vossloh's executive stock option has a **longer** qualifying period imposed before options can be exercised compared to Wabtec's scheme.

7.4.2 German/UK Companies

(1) Number of senior executives involved:

(i) Deutsche Bank's executive stock option scheme has a **greater** number of senior executives involved compared to HSBC's scheme.

(ii) Deutsche Telekom's executive stock option scheme has a **smaller** number of senior executives involved compared to BT's scheme.

(iii) MG Technologies' executive stock option scheme has a **smaller** number of senior executives involved compared to Johnson Matthey's scheme.

(iv) SAP's executive stock option scheme has an **unknown** number of senior executives involved compared to Reuter's scheme.

(v) Schwarz Pharma's executive stock option scheme has a **smaller** number of senior executives involved compared to Cell Tech's scheme.

(vi) SGL Carbon's executive stock option scheme has a **greater** number of senior executives involved compared to TT Electronic's scheme.

(vii) Vossloh's executive stock option scheme has a **greater** number of senior executives involved compared to Henlys' scheme.

(2) Percentage figure of total issued shares under options:

(i) Deutsche Bank's executive stock option scheme has a **greater** percentage figure of total issued shares under option compared to HSBC's scheme.

(ii) Deutsche Telekom's executive stock option scheme has a **smaller** percentage figure of total issued shares under option compared to BT's scheme.

(iii) MG Technologies' executive stock option scheme has a **greater** percentage figure of total issued shares under option compared to Johnson Matthey's scheme.

(iv) SAP's executive stock option scheme has a **greater** percentage figure of total issued shares under option compared to Reuter's scheme.

(v) Schwarz Pharma's executive stock option scheme has a **greater** percentage figure of total issued shares under options compared to Cell Tech's scheme.

(vi) SGL Carbon's executive stock option scheme has a **greater** percentage figure of total issued shares under option compared to TT Electronic's scheme.

(vii) Vossloh's executive stock option scheme has a **greater** percentage figure of total issued shares under option compared to Henlys' scheme.

(3) Number of performance conditions attached:

(i) Deutsche Bank's executive stock option scheme has the **same** number of performance conditions attached compared to HSBC's scheme.

(ii) Deutsche Telekom's executive stock option scheme has the **same** number of performance conditions attached compared to BT's scheme.

(iii) MG Technologies' executive stock option scheme has a **smaller** number of performance conditions attached compared to Johnson Matthey's scheme.

(iv) SAP's executive stock option scheme has the **same** number of performance conditions attached compared to Reuter's scheme.

(v) Schwarz Pharma's executive stock option scheme has a **smaller** number of performance conditions attached compared to Cell Tech's scheme.

(vi) SGL Carbon's executive stock option scheme has the **same** number of performance conditions compared to TT Electronic's scheme.

(vii) Vossloh's executive stock option has a **higher** number of performance conditions attached compared to Henlys' scheme.

(4) Levels of strictness of qualities performance conditions attached:

(i) Deutsche Bank's executive stock option scheme has qualitatively **less strict** performance conditions compared to HSBC's scheme.

(ii) Deutsche Telekom's executive stock option scheme has qualitatively **less strict** number of performance conditions attached compared to BT's scheme.

(iii) MG Technologies' executive stock option scheme has qualitatively **less strict** performance conditions to Textron's scheme.

(iv) SAP's executive stock option scheme has qualitatively **less strict** performance conditions attached compared to Reuter's scheme.

(v) Schwarz Pharma's executive stock option scheme has qualitatively **less strict** performance conditions attached compared to Cell Tech's scheme.

(vi) SGL Carbon's executive stock option scheme has qualitatively **less strict** performance conditions compared to Crane's scheme.

(vii) Vossloh's executive stock option has qualitatively **stricter** performance conditions attached compared to Henly's scheme.

(5) Qualifying period attached to the schemes:

(i) Deutsche Bank's executive stock option scheme has a **shorter** qualifying period imposed before options can be exercised compared to HSBC's scheme.

(ii) Deutsche Telekom's executive stock option scheme has a **shorter** qualifying period imposed before options can be exercised compared to BT's scheme.

(iii) MG Technologies' executive stock option scheme has the **same** qualifying period imposed before options can be exercised compared to Johnson Matthey's scheme.

(iv) SAP's executive stock option scheme has a **shorter** qualifying period imposed before options can be exercised compared to Reuter's scheme.

(v) Schwarz Pharma's executive stock option scheme has a **longer** qualifying period imposed before options can be exercised compared to Cell Tech's scheme.

(vi) SGL Carbon's executive stock option scheme has a **shorter** qualifying period imposed before options can be exercised compared to TT Electronic's scheme.

(vii) Vossloh's executive stock option has the **same** qualifying period imposed before options can be exercised compared to Henlys scheme.

7.5 Conclusion

This chapter completed the process of constructing case-study pattern. It began by gathering information relating to the sample of selected companies from various sources. Yin (1994) suggests that case-study report should provide the means whereby conclusions can be examined directly hence data collected was collated and structured into a database, which summarised important information relating to the individual companies (see Appendix A). This information was then organised to form a second series of database, which contained a series of matching pairs of German/US and German/UK companies (see Appendix B). Following this, a multi-cross comparison was made between the paired companies to form the case-study pattern. With theory-pattern being constructed in Chapter 6 and the case-study pattern completed in this chapter, the next chapter is now able to perform the final act of matching case-study pattern to the theory-pattern and subsequent to this, analyse the results.

Chapter 8: Pattern-matching

8.1 Introduction

Chapter 6 identified and operationalised the significant variables contained in the developed propositions and constructed a theory-pattern. Chapter 7 collected and valued information collected from the case-studies to construct a case-study pattern. This chapter focuses on the third and final step of pattern-matching: examining whether the variables contained in the theory-pattern have the same values as those in the case-study pattern. If the values of the variables in the theory and case-study pattern are found to be the same, it can be tentatively concluded that German executive pay is not converging towards Anglo-American pay practices and that stock option schemes have been adopted by larger German corporations in a typically 'German' way. Such a finding would be useful for future research. For instance, when sample size increase, significance tests may be performed on the differences between sample means, and the hypothesis can be more firmly tested for rejection or support.

The chapter is structured as follows: *Section 8.2* matches each one of the theory-pattern to the case-study patterns and reports the preliminary outcomes. *Section 8.3* determines the conclusiveness of these findings by examining in more detail, the case-studies evidence in relation to each theory-pattern construct. *Section 8.4* examines the propositions from the viewpoint of the German companies contained in the case-studies, to

identify patterns, which could lead to possible avenues for further research. Section 8.5 concludes the chapter.

8.2 The Pattern-matching Process

This section performs the actual matching process by matching the values of the variables in the theory-pattern with those resulted from cross comparing the case-studies. In the preceding tables, each of the five propositions established from Chapter 6 is compared with the findings obtained from the case-studies from Chapter 7. Where evidence from each case-study is found to have matched with the proposition, a tick (√) is made in the column for the relevant case-study pair. Conversely, when the finding from each case-study is found to have differed from each proposition, a cross (X) is made. When then the process is completed, the total number of case-study patterns matching theory-pattern us counted in an unweighted thus providing a rough indication of the level of support for each proposition.

8.2.1 Pattern-matching for German/US Case-Studies

Table 8. 1: Pattern-matching German/US Companies

Theory-Pattern	Case-Study Pattern						
	Vossloh / Wabtec	SGL Carbon / Crane	Schwarz Pharma / Endo Pharma	SAP / AOL	MG Technologies / Textron	Deutsche Telekom / World Com	Deutsche Bank / JP Morgan Chase
Propositions							
P1: Executive stock option schemes in German firms may be expected to cover a greater no. of senior executive participation than equivalent schemes in the USA	✓	X	X	Unknown	X	✓	✓
P2: Executive stock option schemes in German firms may be expected to issue a smaller percentage figure of total issued shares under options than equivalent schemes in the USA	X	✓	✓	✓	✓	✓	X
P3: Executive stock option schemes in German firms may be expected to attach a greater number of performance conditions than equivalent schemes in the USA	✓	✓	X	✓	✓	✓	X
P4: Executive stock option schemes in German firms may be expected to have qualitatively stricter performance conditions than equivalent schemes in the USA	✓	✓	X	✓	✓	✓	X
P5: Executive stock option schemes in German firms may be expected to have longer minimum qualification period than equivalent schemes in the USA	✓	✓	✓	✓	✓	✓	✓

8.2.2 Pattern-matching for German/UK Case-Studies

Table 8. 2: Pattern-matching German/UK Companies

Theory-Pattern	Case-Study Pattern						
	Vossloh / Henlys	SGL Carbon / TT Electronics	Schwarz Pharma / Cell Tech	SAP / Reuters	MG Technologies / Johnson Matthey	Deutsche Telekom / BT	Deutsche Bank / HSBC
Propositions							
P1: Executive stock option schemes in German firms may be expected to cover a greater no. of senior executive participation than equivalent schemes in the USA	✓	✓	X	Unknown	X	X	✓
P2: Executive stock option schemes in German firms may be expected to issue a smaller percentage figure of total issued shares under options than equivalent schemes in the USA	X	X	X	X	X	✓	X
P3: Executive stock option schemes in German firms may be expected to attach a greater number of performance conditions than equivalent schemes in the USA	✓	X	X	X	X	X	X
P4: Executive stock option schemes in German firms may be expected to have qualitatively stricter performance conditions than equivalent schemes in the USA	✓	X	X	X	X	X	X
P5: Executive stock option schemes in German firms may be expected to have longer minimum qualification period than equivalent schemes in the USA	X	X	X	X	X	X	X

8.2.3 The Preliminary Outcomes

Subsequent to the pattern-matching procedure undertaken, the section summarises the findings for each of the pattern matched. If the case-study pattern matches those predicted by theory, it can be concluded that the proposition is supported by evidence from the case-study and should therefore be allowed to go forward as a viable proposition. If the case-study evidence describes other values, it can be concluded that the evidence from the case-study does not support the propositions. If some or all of the values of the case-study differ, then it can be concluded that the empirical evidence only weakly supports or does not support the propositions. Of course, the statistical significance of each of the proposition findings can only be estimated with much bigger samples, but an unsupported proposition should arguably be modified or abandoned.

German/US Case-studies

Proposition 1

Three out of six German companies employed schemes, which included a higher level of senior executive participation compared to the US equivalent schemes. The proposition that German firms can be predicted to be more egalitarian with higher participatory rate by senior executives and employees than equivalent schemes in the USA is at best moderately supported.

Proposition 2

Five out seven German companies were found to have awarded a smaller proportion of shares under its executive schemes compared to US equivalent schemes. The proposition that German firms can be predicted to award lower rewards under their executive stock option schemes compared to equivalent US schemes is supported.

Proposition 3

Five out of seven German companies were found to have attached a greater number of performance conditions to their options compared to US schemes. The proposition that German firms can be predicted to attach qualitatively more performance conditions to executive stock option scheme awards compared to equivalent US scheme is supported.

Proposition 4

Five out of seven German companies were found to have attached a more stringent performance compared to US schemes. The proposition that German firms can be predicted to attach more stringent performance conditions to their executive stock option scheme awards compared to equivalent US schemes is supported.

Proposition 5

Seven out of seven German executive stock option schemes were found to have longer minimum qualification periods compared to their US equivalents. The proposition that corporate governance in Germany will produce executive stock option schemes of longer duration, with longer minimum qualification periods imposed before options can be exercised compared to equivalent US schemes is supported.

German/UK Case-studies

Proposition 1

Three out of six German companies employed schemes, which included a higher level of senior executive participation compared to equivalent schemes in the UK. The proposition that German firms can be predicted to be more egalitarian with higher participatory rate by senior executives and employees than equivalent schemes in the UK is at best moderately supported.

Proposition 2

One out of seven German companies was found to have awarded a smaller proportion of shares under its executive schemes compared to UK companies. The proposition that

German firms can be predicted to award lower rewards under their executive stock option schemes compared to equivalent schemes in the UK is unsupported.

Proposition 3

One out of seven German companies was found to have attached a greater number of performance conditions to their options compared to UK schemes. The proposition that German firms can be predicted to attach qualitatively more performance conditions to executive stock option scheme awards compared to equivalent schemes in the UK is unsupported.

Proposition 4

Two out of seven German companies were found to have attached a more stringent performance conditions compared to UK schemes. The proposition that German firms can be predicted to attach more stringent performance conditions to their executive stock option scheme awards compared to equivalent schemes in the UK is unsupported.

Proposition 5

Zero out of seven German executive stock option schemes was found to have longer qualification period compared to their US equivalents. The proposition that corporate governance in German will produce executive stock option schemes of longer duration,

with longer minimum qualification periods imposed before options can be exercised compared to equivalent schemes in the UK is unsupported.

Overall findings

These provisional findings show that not all of the theories based on the assumption of path-dependency, traditional institutional theory and embeddedness can be supported by evidence from German, US and UK case-studies. That is, while initial findings suggest that evidence provided by the German/US case-studies support Proposition 2, Proposition 3, Proposition 4, Proposition 5 and only very moderate support for Proposition 1. The next section examined the scores of these propositions in more detail to judge the conclusiveness of these results.

8.3 Examining the Results

This section reviews both the German/US and German/UK pattern-matching results by analysing closely the case-study evidence relating to each proposition to determine the extent of their support. Consequently, it also presents an amended set of final results for each of the proposition after taking into account any further evidence uncovered in its analysis.

8.3.1 Individual Proposition Scores

German/US Case-studies

Proposition 1

Proposition 1 stated that executive stock option schemes in Germany may be predicted to cover a greater proportion of the total labour than in the USA. Out of the six pairs of German/US case-studies (not seven, since SAP did not disclose information on the number of executives required), three pairs matched the proposition (see Table 8.3 below). The three case-study pairs, which did not match the proposition, were SGL Carbon/Crane, Schwarz Pharma/Endo Pharma and MG Technologies/Textron and accordingly deserve further examination.

Table 8. 3: Comparisons of proportion of total labour involved (German/US)

German Companies	Percentage of employees involved	US Companies	Percentage of employees involved
Deutsche Bank	2.740 %	JP Morgan Chase	0.005 %
Deutsche Telekom	1.373 %	WorldCom	0.006 %
MG Technologies	0.472 %	Textron	1.435 %
SAP	Unknown	AOL	0.017 %
Schwarz Pharma	0.123 %	Endo Pharma	0.200 %
SGL Carbon	1.905 %	Crane	2.116 %
Vossloh	0.930 %	Wabtec	0.114%

A closer inspection of the case-study of Schwarz Pharma/Endo Pharma and SGL Carbon/Crane shows that the difference between executive involvements in Schwarz Pharma/Endo Pharma and SGL Carbon/Crane schemes are not very significant. For example, Schwarz Pharma awarded stock options to 0.12 per cent of its total workforce while Endo Pharma awarded stock options to 0.20 per cent of its total workforce. Similarly, SGL Carbon awarded stock options to 1.90 per cent of its total workforce and Crane awarded stock options to 2.12 per cent of its total workforce. The case-study of MG Technologies/Textron on the other hand, does appear to provide no support for this proposition with MG Technologies' executive stock option scheme involving a smaller number of executives, covering only 0.47 per cent of its total workforce compared to Textron's 1.43 per cent.

Proposition 2

Proposition 2 stated that German companies can be predicted to award lower rewards in total, measured by the proportion of firms' total issued capital awarded to executives under their executive stock option schemes compared to their US equivalents. Out of the seven pairs of case-studied, five pairs supported this proposition (see Table 8.4 below). The two case-studies, which do not support this proposition, were Deutsche Bank/JP Morgan Chase and Vossloh/Wabtec, and thus deserve further examination.

Table 8. 4 Comparisons of proportion of shares awarded and number of participants involved (German/US)

German Companies	% max. underlying shares to total no. of shares outstanding	Number of participants	US Companies	% max. underlying shares to total no. of shares outstanding	Number of Participants
Deutsche Bank	0.230 %	2,498	JP Morgan Chase	0.226 %	5
Deutsche Telekom	0.033 %	264	WorldCom	0.126 %	4
MG Technologies	0.286 %	180	Textron	3.159 %	1,019
SAP	0.122 %	1,650	AOL	0.273 %	3
Schwarz Pharma	2.037 %	500	Endo Pharma	10.662 %	60
SGL Carbon	0.876 %	154	Crane	0.468 %	199
Vossloh	2.870 %	45	Wabtec	1.759 %	5

Although both Deutsche Bank and Vossloh executive stock option schemes were found to award higher or similar proportion of total shares when compared to their US counterparts, a closer inspection shows that where the number of proportion of shares issued and the number of senior executives awarded stock options or proportion of total labour force awarded options are interdependent, they awarded the proportions of total shares a higher number of executives in comparison to US firms. For example, Deutsche Bank awarded 0.23 per cent of its total shares to 2,498 or 2.74 percent of its total labour force compared to JP Morgan Chase's 0.23 per cent to 5 executive officers or 0.005 per cent of its total labour force. Similarly, Vossloh awarded 2.87 percent of its total shares to 45 executives or 0.930 per cent of its labour force compared to Wabtec's 1.76 per cent to 5 executive officers of 0.114 per cent of its labour force. By definition of course, other things being equal, if the number of executives covered by an executive stock option

scheme or proportion of labour force awarded stock options was low, this would limit the proportion of total shares covered by the scheme.

Proposition 3

Proposition 3 stated that executive stock option scheme in Germany may be predicted to attach quantitatively more performance conditions compared with US schemes ensuring that executives earn their gains. This proposition was supported by five out of seven German firms having quantitatively more numerous performance conditions attached to their executive stock option schemes compared to US companies. The two-case-studies, which did not support this construct, were Deutsche Bank/JP Morgan Chase and Schwarz Pharma/Endo Pharma (Table 8.5 below)

Table 8. 5: Comparisons of number of performance conditions attached (German/US)

German Companies	No. of performance Conditions	US Companies	No. of performance Conditions
Deutsche Bank	1	JP Morgan Chase	1
Deutsche Telekom	1	WorldCom	0
MG Technologies	1	Textron	0
SAP	1	AOL	0
Schwarz Pharma	0	Endo Pharma	0
SGL Carbon	1	Crane	0
Vossloh	1	Wabtec	0

Further analysis of Deutsche Bank/JP Morgan Chase shows that although the Deutsche Bank executive stock option does not have more performance conditions attached, the scheme does involve a discount of up to two-thirds on the exchange of shares for bonds that depend on performance of EPS or its hurdle rate. Similarly, an analysis of the Schwarz Pharma's executive stock option scheme also reveals that although Schwarz Pharma has fewer conditions than Endo Pharma, it also provides an additional, unconventional condition involving a premium on the executive stock option scheme exercise price. Thus, it could be argued that these case-studies only contradict Proposition 3 because of the technical way in which performance conditions are defined.

Proposition 4

Proposition 4 stated that German executive stock option schemes can be predicted to use more demanding performance indicators measured by the use of qualitatively more demanding performance indicators compared with US schemes. This proposition was supported by five out of seven pairings with most of the German executive stock option schemes in the study attaching more stringent performance conditions compared to US schemes, which were mostly 'naked'.

Similar to the case in Proposition 3, it is the case-studies of Deutsche Bank/JP Morgan Chase and Schwarz Pharma/Endo Pharma, which did not offer any support to this proposition (Table 8.6).

Table 8. 6: Comparisons of performance conditions attached (German/US)

German Companies	Performance Conditions	US Companies	Performance Conditions
Deutsche Bank	Average adjusted pre-tax EPS to exceed average pre-tax EPS of previous years	JP Morgan Chase	Cumulative EPS for next 2 years to achieve targets of \$8.50 and \$9.50
Deutsche Telekom	Share price to outperform Euro Stoxx Index	WorldCom	None
MG Technologies	Average EPS growth to exceed historical average EPS growth	Textron	None
SAP	Share price to outperform Goldman Sachs Software Index	AOL	None
Schwarz Pharma	None	Endo Pharma	None
SGL Carbon	Share price and reinvested dividends to exceed exercise price by at least 15%	Crane	None
Vossloh	Share price to outperform the M-DAX	Wabtec	None

Nonetheless, as described before, both Deutsche Bank and Schwarz Pharma have issued additional provisions in relation to the subscription price despite having ‘weaker’ performance conditions in comparison to their US matches. The same observation made for Proposition 3 could thus be made here: where the German executive stock option schemes involve additional performance conditions compared to their US equivalents, the performance targets can be considered as being more demanding.

Proposition 5

Proposition 5 states that German executive stock option schemes may be predicted to have longer qualification period imposed before options can be exercised, compared to

equivalent schemes in the USA. All of the seven case-studies supported the proposition (see Table 8.7 below).

Table 8. 7: Comparisons of minimum qualification period imposed (German/US)

German Companies	Minimum qualification period	US Companies	Minimum qualification period
Deutsche Bank	2 years	JP Morgan Chase	1 year
Deutsche Telekom	2 years	WorldCom	1 year
MG Technologies	3 years	Textron	1 year
SAP	2 years	AOL	1 year
Schwarz Pharma	2 years	Endo Pharma	None
SGL Carbon	2 years	Crane	1 year
Vossloh	3 years	Wabtec	Discretionary

German/UK Case-studies

Proposition 1

Proposition 1 stated that executive stock option schemes in Germany may be predicted to cover a greater proportion of the total labour than in the UK. Out of the six pairs of German/UK case-studies (again not seven, since SAP did not disclose information on the number of executives required), only three supported this construct (see table 8.8). The remaining three pairs of case-studies, which did not match this proposition, were Deutsche Telekom/BT, MG Technologies/Johnson Matthey and Schwarz Pharma/Cell Tech.

Table 8. 8: Comparisons of proportion of total labour involved (German/US)

German Companies	Percentage of employees involved	UK Companies	Percentage of employees involved
Deutsche Bank	2.740 %	HSBC	0.154 %
Deutsche Telekom	1.373 %	BT	2.388 %
MG Technologies	0.472 %	Johnson Matthey	0.148 %
SAP	Unknown	Reuters	0.055 %
Schwarz Pharma	0.123 %	Cell Tech	25.037 %
SGL Carbon	1.905 %	TT Electronics	0.121 %
Vossloh	0.930 %	Henlys	0.175 %

Examining these case-studies in greater detail, it was found that there was a significant difference between the proportion of labour force awarded options in these UK and German schemes. For example, a closer examination of the case-study of Deutsche

Telekom/BT showed that Deutsche Telekom only awarded 1.373 per cent of its total labour workforce compared to BT's 2.388 per cent. Similarly, MG Technologies only awarded 0.472 per cent of its total labour force compared to Johnson Matthey's 23.585 per cent. Schwarz Pharma also awarded a much smaller percentage of its total workforce of 0.123 per cent compared to Cell Tech's 25.038 per cent.

Proposition 2

Proposition 2 stated that German companies can be predicted to award lower rewards in total, measured by the proportion of firms' total issued capital awarded to executives under their executive stock option schemes compared to their UK equivalents. Out of the seven case-studies, only Deutsche Telekom/BT matched the construct theory by awarding a lower percentage to its executives (see Table 8.9 below).

Table 8.9: Comparisons of proportion of shares awarded and number of participants involved (German/UK)

German Companies	% max. underlying shares to total no. of shares outstanding	Number of participants	UK Companies	% max. underlying shares to total no. of shares outstanding	Number of participants
Deutsche Bank	0.230 %	2,498	HSBC	0.022 %	264
Deutsche Telekom	0.033 %	264	BT	0.149 %	2,500
MG Technologies	0.286 %	180	Johnson Matthey	0.148 %	1,650
SAP	0.122 %	1,650	Reuters	0.021 %	9
Schwarz Pharma	2.037 %	500	Cell Tech	1.710 %	508
SGL Carbon	0.876 %	154	TT Electronics	0.468 %	100
Vossloh	2.870 %	45	Henlys	1.759 %	3

However, studying the other case-studies closely and considering the number of executives awarded the options and underlying shares, it was discovered that all German companies except for Deutsche Bank had issued out a higher proportion of shares under its executive stock option schemes. In the case of Deutsche Bank, it was seen that although the Bank awarded 0.230 per cent of its total shares compared to HSBC's 0.022 per cent, it was to 2,498 executives or 2.740 per cent of its labour force compared to HSBC's 264 or 0.154 per cent. As previously mentioned, other things being equal, where HSBC's executive stock option scheme covered a lower number of executives, it would limit the proportion of total shares awarded to its senior executives. Nevertheless, the findings still indicate that Proposition 2 is weakly supported by the evidence from German/UK case-studies. Indeed, the exceptional case of Deutsche Telekom showing clear and direct support for Proposition 2 may have been the result of the conservative influence of high State ownership in the financial year 2000, with the State owning 43 per cent of total shares directly, plus another 17 per cent indirectly through the German Development Bank.

Proposition 3

Proposition 3 stated that executive stock option scheme in Germany may be predicted to attach quantitatively more performance conditions compared with UK schemes ensuring that executives earn their gains. This proposition was supported by the case-study of Vossloh/Henlys when Henlys executive stock option scheme was found with no performance conditions attached. It is discovered that all the case-studies of Deutsche

Bank/HSBC, Deutsche Telekom/BT, SAP/Reuters, and SGL Carbon/TT Electronics did not support this construct because they all equally attached only one performance condition. On the other hand, the performance conditions of executive stock option schemes adopted by MG Technologies and Schwarz Pharma were simply outnumbered where Johnson Matthey employed two conditions and Cell tech provided one. Interestingly, Vossloh/Henlys supported this construct not because Vossloh was found with more than one performance condition but because Henlys did not specify any conditions attached to its executive stock option scheme (see Table 8.10 below).

Table 8. 10: Comparisons of the number of performance conditions attached (German/UK)

German Companies	No. of performance Conditions	UK Companies	No. of performance Conditions
Deutsche Bank	1	HSBC	1
Deutsche Telekom	1	BritishTelecom	1
MG Technologies	1	Johnson Matthey	2
SAP	1	Reuters	1
Schwarz Pharma	0	Cell Tech	1
SGL Carbon	1	TT Electronics	1
Vossloh	1	Henlys	0

Proposition 4

Proposition 4 stated that German executive stock option schemes can be predicted to use more demanding performance indicators measured by the use of qualitatively more demanding performance indicators compared with UK schemes. Only one of the seven pairings supported this proposition where all of the German companies, with the exception of Vossloh were found to have less stringent performance conditions attached to its

executive stock option schemes compared it its UK equivalent of Henlys (see Table 8.11 below). The case-study of Vossloh/Henlys supported this proposition not because Vossloh was found with more than one performance condition but because Henlys did not specify any conditions to its executive stock option scheme.

Table 8. 11: Comparisons of performance conditions attached (German/UK)

German Companies	Performance Conditions	UK Companies	Performance Conditions
Deutsche Bank	Average adjusted pre-tax EPS to exceed average pre-tax EPS of previous years	HSBC	Attainment of predetermined TSR targets against the mean of selected benchmark over 3 years.
Deutsche Telekom	Share price to outperform Euro Stoxx Index	British Telecom.	Attainment of TSR targets against rank of companies on FTSE 100 Index after 3 years.
MG Technologies	Average EPS growth to exceed historical average EPS growth	Johnson Matthey	Attainment of TSR targets against rank of companies on FTSE mid 250 index over 3 years. EPS growth also to exceed RPI + 2% p.a.
SAP	Share price to outperform Goldman Sachs Software Index	Reuters	TSR targets over 3-5 years compared to companies in FTSE 100 index.
Schwarz Pharma	None	Cell Tech	Share price outperforming the FTSE Mid 250 Index by a margin over 3 years.
SGL Carbon	Share price and reinvested dividends to exceed exercise price by at least 15%	TT Electronics	EPS to increase at a rate greater than 2% above any increase in the all items index of retail prices after 3 years.
Vossloh	Share price to outperform the M-DAX	Henlys	None

Proposition 5

Proposition 5 states that German executive stock option schemes may be predicted to have longer qualification period imposed before options can be exercised, compared to equivalent schemes in the UK. None of the case-studies matched this construct (see Table 8.12 below).

Table 8. 12: Comparisons of minimum qualification period imposed (German/UK)

German Companies	Minimum qualification period	UK Companies	Minimum qualification period
Deutsche Bank	3 years	HSBC	5 years
Deutsche Telekom	2 years	British Telecom.	3 years
MG Technologies	3 years	Johnson Matthey	3 years
SAP	2 years	Reuters	3 years
Schwarz Pharma	2 years	Cell Tech	3 years
SGL Carbon	2 years	TT Electronics	3 years
Vossloh	3 years	Henlys	3 years

Deutsche Bank's minimum qualification period was 2 years earlier than HSBC's. Deutsche Telekom, SAP, Schwarz Pharma and SGL Carbon specified a minimum qualification period one year shorter than its UK equivalent and MG Technologies and Vossloh shared the same number of years.

8.3.2 The Findings Summarised

This section summarises the findings after taking into consideration the additional observations acquired from the previous section. Again, it has to be noted here that the findings are still tentative at this stage, and the statistical significance of findings can only be estimated with further research. Additionally, as Chapter 4 and Chapter 5 explained, because the study was performed when the adoption of executive stock option schemes by German companies was at an early stage, and the data obtained only related to one financial year, the results are only a snapshot.

Table 8. 13: Final Results - Pattern-matching German/US Companies

Theory-Pattern	Case-Study Pattern						
	Vossloh / Wabtec	SGL Carbon / Crane	Schwarz Pharma / Endo Pharma	SAP / AOL	MG Technologies / Textron	Deutsche Telekom / World Com	Deutsche Bank / JP Morgan Chase
Propositions							
P1: Executive stock option schemes in German firms may be expected to cover a greater no. of senior executive participation than equivalent schemes in the USA	✓	✓	✓	Unknown	X	✓	✓
P2: Executive stock option schemes in German firms may be expected to issue a smaller percentage figure of total issued shares under options than equivalent schemes in the USA	✓	✓	✓	✓	✓	✓	✓
P3: Executive stock option schemes in German firms may be expected to attach a greater number of performance conditions than equivalent schemes in the USA	✓	✓	✓	✓	✓	✓	✓
P4: Executive stock option schemes in German firms may be expected to have qualitatively stricter performance conditions than equivalent schemes in the USA	✓	✓	✓	✓	✓	✓	✓
P5: Executive stock option schemes in German firms may be expected to have longer minimum qualification period than equivalent schemes in the USA	✓	✓	✓	✓	✓	✓	✓

Table 8. 14: Final Results - Pattern-matching German/UK Companies

Theory-Pattern	Case-Study Pattern						
	Vossloh / Henlys	SGL Carbon / TT Electronics	Schwarz Pharma / Cell Tech	SAP / Reuters	MG Technologies / Johnson Matthey	Deutsche Telekom / BT	Deutsche Bank / HSBC
Propositions							
P1: Executive stock option schemes in German firms may be expected to cover a greater no. of senior executive participation than equivalent schemes in the USA	✓	X	✓	Unknown	X	X	✓
P2: Executive stock option schemes in German firms may be expected to issue a smaller percentage figure of total issued shares under options than equivalent schemes in the USA	X	X	X	X	X	✓	✓
P3: Executive stock option schemes in German firms may be expected to attach a greater number of performance conditions than equivalent schemes in the USA	✓	X	X	X	X	X	X
P4: Executive stock option schemes in German firms may be expected to have qualitatively stricter performance conditions than equivalent schemes in the USA	✓	X	X	X	X	X	X
P5: Executive stock option schemes in German firms may be expected to have longer minimum qualification period than equivalent schemes in the USA	X	X	X	X	X	X	X

Taken as a whole, these provisional pattern-matching results demonstrate that there is little evidence of across-the-board German convergence on US-style executive stock option schemes. When compared to US executive stock option schemes, German comparators appear to have retained German characteristics in the sense of being less generous and maintaining more quantitatively and qualitatively performance conditions as well as appearing to be more concerned with long-termism by decreeing longer qualifying period. Additionally, there is also some support for German executive stock option schemes extending further down the managerial ladder, to include a greater proportion of the total labour force than in the USA.

As was noted in Chapter 2, UK corporate governance is usually bracketed with US-style market capitalism, identified as an Anglo-American corporate governance model. Hence, it is interesting to note that in terms of detailed characteristics, UK executive stock option schemes do not generally occupy an intermediate position between the USA and Germany. Indeed, UK executive stock option schemes in the paired case-studies seem to be empathically more 'German' than actual German schemes in their quantity and quality of performance conditions, the proportion of shares under options and the longer time horizons.

Future tests on these five propositions are vital. When sample size increases and more information is forthcoming, statistical significance tests may be conducted on the differences between sample means, providing an opportunity to tests these constructs to obtain more concrete analytical generalisations. Anticipating the need for future tests, the

next section examines the construct from the perspective of individual German companies, in order to identify additional patterns occurring within the area of German executive pay, which might be invaluable for future research.

8.4 Examining German Companies in Case-Studies

This section examines the evidence provided by each German company in the German/US case-study pairs to identify additional patterns occurring within the area of German executive pay, which might be invaluable to future avenues for research.

Deutsche Bank/JP Morgan Chase

Deutsche Bank's main executive stock option scheme in 2000, the Global Equity Plan when compared with JP Morgan Chase's Stock Incentive Plan was found to have supported only two out of six propositions. Section 8.3.1 highlighted however that a close examination of the Deutsche Bank/JP Morgan Case showed that it however indirectly supported three other propositions. For example, although Deutsche Bank's Global Equity Plan did not issue a smaller proportion of total share capital when compared to JP Morgan Chase's Stock Incentive Plan, the Plan did not award a smaller proportion of total share capital per executive. Additionally, where Deutsche Bank executive stock option scheme came attached with less stringent performance conditions compared to executive stock option scheme in JP Morgan Chase, it conversely imposed a discount of up to two-thirds

on the exchange of shares for bonds depending on share price performance. Based on these findings, it can thus be concluded that evidence provided by Deutsche Bank/JP Morgan Chase pertaining to financial year 2000, do provide some support for the proposal that its executive stock option scheme has remained 'German'.

Even so, in 2001, Deutsche Bank replaced its Global Equity Plan with a plan named DB Global Partnership. Under DB Global Partnership, instead of receiving convertible bonds, executives are awarded options. More importantly, the stock option plan differed from the convertible bond plan by making the purchase of options conditional upon Deutsche Bank's share price being at least 120 per cent its issue price. Additionally, the minimum qualification period for the exercise of the options were shortened from three years to two years after the date they were awarded. There was however, an exception to this. Where share price rises are considered to be substantial and not temporary: option rights may be exercised prematurely but only after the expiry of two years from the respective date on which they were awarded and the Deutsche Bank share price amounts to at least 130 per cent of the basis price before the exercise of the option right on 35 successive trading days. Finally, a smaller number of executives (approximately 387 executives) were allowed to participate in this scheme.

Justifying the amendment made to the performance condition, Deutsche Bank stated in its report that, 'alternative performance condition' was not viable owing to the conversion of Group reporting to US GAAP as implementing an alternative performance condition would lead to significant staff expense in the Consolidated Income Statement under the US

GAAP: 'Where most of Deutsche Bank's competitors on the capital markets use such performance conditions and if the performance conditions of Deutsche Bank's programmes were to continue unchanged, the Group would have to accept competitive disadvantages on the equity markets, with negative effects on the share price' (Item 11 or 12: Report of the Board of Managing Director to the General Meeting, 2001). Nevertheless, Deutsche Bank also highlighted that the new plan included a longer minimum qualifying period because it wanted to give the entitled beneficiaries, 'a longer term incentive to raise company value in the interest of the shareholders' (Item 11 and 12: Report of the Board of Managing Directors to the General Meeting, 2001).

Hence, although the case-study of Deutsche Bank/JP Morgan Chase in 2000 provided evidence that German incentive pay has essentially remained German, developments occurring after 2000 such as Deutsche Bank's conversion to US GAAP from IAS and its listing of shares on the NYSE on October 2002 indicate that Deutsche Bank's incentive pay structure has been amended to incorporate some of the characteristics consistent with US executive stock option schemes.

Deutsche Telekom / World Com

Deutsche Telekom's Stock Option Plan 2000, when compared with WorldCom's 1999 Stock Option Plan provided support for all five constructs, tentatively approving the proposition that Deutsche Telekom's executive stock option scheme essentially remained 'German'. However, like Deutsche Bank, Deutsche Telekom also announced in 2001, that

it was replacing the Stock Option Plan 2000 with a modified plan called the 2001 Stock Option Plan. Essentially, the 2001 Stock Option Plan differed from its predecessor by replacing the clause that made the options exercisable conditional upon Deutsche Telekom's share prices outperforming the Dow Jones Euro Stoxx 50 Index with an absolute performance target of an increase in the price of 20 per cent over the reference price of the T-share. The 2001 Stock Option Plan was also more broadly based and more internationally oriented. Compared to Stock Option Plan 2000 which only awarded stock options to 300 selected executives, the new plan awarded options to 3,000 executives ranging from the executive board members of the company and group to the executive members of other second and lower-tier group companies and other specialists of Deutsche Telekom and of national and international second and lower-tier group companies which do not offer their own stock option plan.

Under US GAAP, executive stock option schemes with index based or performance-linked targets are considered variable and are required to be reported as personnel expenses in the consolidated income statement resulting in a reduction in profit. Conversely, where executive stock option schemes considered to be fixed or certain of being exercised and the hurdles linked to the attainment of fixed share price targets, they are not required to be reported as personnel expenses. By choosing to adopt a stock option plan with share price targets, Deutsche Telekom thus explained that it would be able to report its incentive plan as fixed and thus able to report operation results, which are in line with other US or global competitors reporting under US GAAP. Hence, the new performance condition removed the disadvantage faced by the Company now that stock options can be reported

in accordance with US GAAP without affecting net income (Items 7 and 8 of the Report of the Board of Managing Directors to the General Meeting, 2000).

Although the case-study of Deutsche Telekom / World Com in 2000 provided evidence to support the view that German incentive pay has essentially remained German, these developments indicate that the incentive pay structure of Deutsche Telekom is to an extent, responding to external institutional pressures such as those provided by US GAAP.

MG Technologies / Textron

MG Technologies' stock option scheme in 2000, the Modified Stock Option Plan 1998 when compared with Textron's 1999 Long Term Incentive Plan was found to have supported only four out of five propositions. That is, MG Technologies' executive stock option scheme was found not to cover a greater number of executives compared to Textron's executive stock option scheme. However, MG Technologies could be considered atypical German firm in that figures from its 2000 financial year report show that 21 per cent of its shares were US-owned and UK financial institutions owned a further 20 per cent. In 2001 and 2002, MG technologies' group executives were awarded options under the same programme without any changes.

SAP/AOL

SAP's executive stock option scheme in 2000, the 2000 LTI Plan when compared with AOL's Stock Option Award was found to have supported four out of four propositions, supporting the proposition that SAP's executive stock option scheme although appear to represent convergence in the form of US-style executive pay, is still 'German' in character. Nevertheless, at the 2002 Annual General Meeting of shareholders, SAP's shareholders approved the replacement of the 2000 LTI Plan with the Stock Option Plans 2002. Describing the 2000 LTI Plan as complex compared to other plans implemented by German companies in the DAX 30 as well as US companies, SAP introduced SOP 2002 as a significantly simplified structure where it offered only straightforward stock options and replaced the use of index-based performance targets with fixed share price targets. However, where each stock option entitles the subscription of one SAP share, the payment of exercise price will compose of a base price and a premium of 10 per cent.

SAP explained in its report to shareholders that by eliminating index-based targets, SAP's executive stock option schemes will become more competitive with its US competitors and other German companies that prepare their balance sheets in accordance with US GAAP. Adopting a stock option, which is considered a fixed plan under the US GAAP, will not negatively impact the operation results of SAP, its earnings per share and cash flows thus resulting in SAP becoming more competitive.

The case-study of SAP/AOL in 2000 provided strong tentative evidence to support the view that German incentive pay has essentially remained German. However, the recent

amendments made to SAP's executive stock option scheme indicate that the incentive pay structure of SAP is to an extent influenced by external institutional pressures in the form of US GAAP. Notwithstanding this, SAP's new plan in requiring that the payment of the exercise price of the stock options include a premium of 10 per cent in addition to the base price has resulted in exercising options more demanding.

Schwarz Pharma / Endo Pharmaceuticals

Schwarz Pharma's main stock option scheme in 2000, the Stock Option Program 2000, when compared with Endo Pharmaceuticals' LLC 1997 Stock Option Plans was found to have supported only three out of five propositions. This was due to Schwarz Pharma's stock option programme specifying only share price targets as its performance conditions. Because of this, the evidence from the case-study of Schwarz Pharma / Endo Pharmaceuticals provided only moderate support for the proposition that its executive stock option scheme did not converge to US-style executive stock option scheme. On the other hand, Section 8.3.1 highlighted that because Schwarz Pharma had issued additional provisions relating to stock options subscription price, in addition to its share price targets, its scheme could be said to provide additional performance conditions compared to Endo Pharma. Where these findings are reached, Proposition 3 and Proposition 4 could be indirectly supported thus providing that Schwarz Pharma's executive stock option is still fundamentally 'German'.

Nonetheless, in 2003, Schwarz Pharma announced that it was replacing its 2000 Stock Option Program with Executive Stock Option 2003. Contrary to Deutsche Bank, Deutsche Telekom and SAP however, the plan did not amend its performance conditions but instead differed from the previous one by choosing to issue straightforward options instead of issuing convertible bonds and extending the minimum qualification period from 2-3 years to 4 years.

SGL Carbon / Crane

SGL Carbon's stock option plan in 2000, the Stock Option Plan 2000 when compared with Crane's Stock Option Plan 1998 was found to have supported four of the five propositions where it did not support Proposition 1. Section 8.3.1 however revealed that a closer inspection of the case-study of SGL Carbon/Crane shows that the differences between executive involvements in SGL Carbon and Crane schemes are not very significant both in terms of actual number of executives involved and proportion of senior executives awarded options out of total workforce. It could thus be said that SGL Carbon's executive stock option scheme is still fundamentally German. SGL Carbon did not amend its executive stock option schemes in 2001 and 2002.

Vossloh / Wabtec

Vossloh's stock option plan in 2000, the Long Term Incentive Plan 1998 when compared with Wabtec's 2000 Stock Incentive Plan supported four out of five propositions. Vossloh's

executive stock option scheme did not provide support for Proposition 2 where it awarded options to a higher number of senior executives compared to Wabtec. Section 8.3.1 examined this finding and found that where the number of proportion of shares issued and the number of senior executives awarded stock options are interdependent, Vossloh has awarded the proportion of total shares to a higher number of executives compared to Wabtec. Taking this into consideration thus, it can be concluded that Vossloh's executive stock option scheme, although appear to represent convergence in the form of US-style executive pay remains essentially 'German'. Vossloh continued with the same stock option plan for 2001 and 2002.

The examination of the seven German companies contained in the case-studies has revealed that in four of the companies (Deutsche Bank, Deutsche Telekom, SAP and Schwarz Pharma) executive stock option schemes, which were used to compare with US and UK executive stock option schemes, have undergone important changes in the subsequent years. With the exception of Schwarz Pharma, the main changes incorporated in the scheme have been related to performance conditions. Deutsche Bank, Deutsche Telekom, and SAP have all justified the need to amend their performance conditions in order to become more competitive with its competitors who prepare their balance sheets in accordance with US GAAP. Hence, although the results obtained from the case-studies of German/US executive stock option schemes have tentatively suggested that German incentive pay has remained German, developments occurring after 2000 indicate that incentive pay structure of larger German corporations is to some extent responding to external institutional pressures such as those provided by US GAAP.

8.5 Conclusions

This chapter performed the final step of pattern-matching, examining whether the variables contained in the theory-pattern have the same values as those in the case-study patterns. The pattern-matching results using evidence obtained from German/US case-studies showed that generally there is little evidence of German convergence on US-style executive stock option schemes. When compared with equivalent schemes in the USA, German executive stock option schemes have essentially remained 'German', in the sense of being less generous in terms of attaching quantitatively and qualitatively more performance conditions and awarding lower number of underlying shares. German executive stock option schemes have also been seen to generally extend further down the managerial ladder compared to executive stock option schemes in the USA. On the other hand, German executive stock option schemes when compared to equivalent schemes in the UK appear to be less 'executive friendly' with UK executive stock option schemes awarding a smaller proportion of total shares, specifying tighter performance conditions and longer equivalent minimum qualification period.

Nevertheless, further studies on individual German companies contained in the case-studies have revealed that the behaviour of German firms does seem to become more 'American' following the company's accounting conversion to US GAAP and/or listing or expected listing of the company's shares on the NYSE. This is especially illustrated by the cases of Deutsche Telekom, Deutsche Bank, and SAP, which although provided strong matches to constructs, have recently adopted more simply structured executive stock option schemes with performance conditions, which are not linked, to competitors' performances, similar to those attached to executive stock option schemes in the USA.

Finally, an important point made by this chapter is that although it attempted to derive some generalisations by conducting pattern-matching, it must be noted that at this stage, it is difficult to claim any absolute analytical generalisation. For the most part, findings remain tentative until some statistical significance tests can be conducted and of course, this may only be possible when sample size increases and more information becomes forthcoming. Nevertheless, these research results are important in that they provide a useful basis for when further detail research is possible by demonstrating how subsequent, formal tests may be performed.

Chapter 9: Conclusion

Chapter 1 stated that the main aim and challenge of this research was to compare German executive stock option schemes with equivalent schemes in the USA and UK to establish whether they represent an example of convergence for German executive pay in particular, and therefore for corporate governance in general. The objective of this final chapter is to review the findings of the research undertaken and to assess its contribution for the development of a better understanding of German executive pay, stock option schemes as well as corporate governance and convergence.

This concluding chapter is organised as follows. *Section 9.1* reviews key findings. *Section 9.2* considers the possible contribution that the research may make the academic debate and any implications it might have for policy, and for remuneration practices in firms. *Section 9.3* considers the limitations of the research and highlights suggestions for future work.

9.1 Discussions of Key Findings

Where this research has obtained a number of key findings, they are each discussed in this section, under the different sub-sections below.

9.1.1 Lack of Adoption of US-Style Levels of Information Disclosure

While larger German companies have adopted seemingly US-style stock option schemes, there has not been a parallel adoption of US-style levels of information disclosure. By the start of 2002, forty-three German quoted firms had announced the existence of executive stock option schemes, however, only fourteen disclosed detailed information about them. Out of these fourteen companies, ten companies were required to disclose information by the American Securities Exchange Act of 1934 when they chose to issue Level II and III ADRs and GDRs on the American markets. Additionally, out of the same total fourteen companies, eleven companies had voluntarily chosen to adopt US GAAP accounting methods, hence providing more information than what is contained in their German HGB accounts. Table 5.1 provided details of companies disclosing information via detailed disclosure through ADRs and US GAAP.

It is interesting to note that out of the total fourteen companies disclosing information, nine were found to have disclosed information both through ADRs and US GAAP. While reports submitted to the American SEC need not strictly comply with the US GAAP, but have to be reconciled with US accounting and disclosure requirements and often extensive, information prepared for American SEC submissions often contain similar information as those disclosed under US GAAP. Hence, it could be stated that out of the fourteen companies providing information on their executive stock option schemes, only three (Continental, MG Technologies and Vossloh) did so without being required to do so by American law.

Although the number of German companies disclosing information through preparing their accounts using US GAAP and issues of ADRs and GDRs are set to increase, and information disclosure on stock option schemes is increasing, it is still worth noting that certain information remains unobtainable. For example, during the research process, it was discovered that where German companies issued stock appreciation rights and stock options to its executives, and the underlying shares are bought by the companies from third parties, German companies (which do not file in reports with US SEC) are not required by *Aktiengesetz* to make information public relating to the schemes.

Furthermore, while German companies are required to disclose compensation details relating to top executives as a group, the identification of individuals, and their individual compensation packages, does not have to be disclosed. Where the reports submitted to the American SEC only have to be reconciled with US accounting and disclosure requirements, German companies issuing ADRs and GDRs, unlike US companies, are able to avoid disclosing information on the company's five highest paid officers. Furthermore, it was discovered during the data collection process that it is not probable for a public German company listed on the NYSE to decline to provide what appears to be quite innocuous information. In the case of the German company SAP, the firm refused to give this researcher information on even the total number of employees covered by their executive stock option schemes. The decision to withhold information relating to executive stock option schemes from the researchers and shareholders appears to be both surprising and strange, seeing as stock option schemes are a US-style executive pay device that is supposed to promote shareholders' interests by incentivising managers. It is

also paradoxical that in a country where various stakeholders voice their deep concern for fairness in business, the disclosure of information on executive stock option schemes as an important component of executive pay is very thin.

Thus, the clearest and most obvious observation on German stock option schemes is that if they constitute one example of convergence on US-style corporate governance, they have certainly not been accompanied by US-style information disclosure. The habits of relational governance, including the restriction of information to insider stakeholders, are hard to break in this context, and executive compensation disclosure could be considered a precedent-establishing case for German corporate governance reform in general.

9.1.2 UK Executive Stock Option Schemes Differ from US Schemes

Performing the process of pattern-matching on the German/UK companies, the research revealed a second, unexpected finding that in terms of detailed characteristics, UK share-based schemes, whether in the form of executive stock option schemes or conditional share awards while often classified as being equivalent to US-style schemes, do not appear to be similar to US schemes at all. In fact, case-study evidence showed that UK firms when compared to German and US schemes awarded lower underlying shares in total; attached quantitatively more and qualitatively stricter performance conditions; and specified longer qualifying periods.

The UK represents an 'Anglo-American' model of corporate governance and under this model, firms are perceived to give priority to maximising shareholders' returns or wealth, yet UK schemes appeared to be empathically more German (in the sense of being egalitarian and tougher) on examination, than German schemes themselves. Clearly, this anomalous finding raises important questions. If the findings are caused by the fact that institutions in the UK have resisted the blind adoption of US-style governance innovation and adapted the schemes to fit in with the local governance environment, then perhaps the description of the 'Anglo-American' model for UK corporate governance needs to be reassessed for being too broad and over stating UK's institutional similarities with the USA. On the other hand, if the this outcome is the result of UK's experience with executives' abuses of reward schemes of recently privatised utility companies which lead to increased public scrutiny leading to the adoption of more stringent conditions or adoption of long term incentive plans with conditions such as market improvement measured against comparator, or limited stock options value. This outcome may have some theoretical and policy implications as discussed below.

Certainly, the disclosure requirements with regard to executive stock option schemes in the UK, is far more stringent than those of US companies. Conyon and Sadler (2001) discuss how Greenbury (1995) requires full disclosure for a Black-Scholes style option valuation for both current and past option grants paid to the company's directors. This in contrast to US disclosure requirements which require full information for only the current option grant, and the intrinsic value of all unexercised options, which means that only options that are in the money will have a value placed upon them.

9.1.3 German Schemes Displayed Predicted Characteristics

Findings from German and US companies were more predictable. Pattern-matching revealed that German executive stock option schemes displayed characteristics, which were predicted by my proposition and hence differed from their US equivalents in a number of important ways. Where all five of the propositions were found to be supported by evidence, the research tentatively concluded that the adoption of US-style executive stock option schemes by German corporations have been influenced by prevailing German institutions and interest groups. Additionally, these findings appear to implicitly favour traditional institutional theory and its prediction of institutional inertia, and the adoption of US executive stock option schemes by German corporations, in its details, does not appear to represent the convergence of German executive pay, and hence German corporate governance on the US pattern.

9.2 Research Contribution

Disclosure of business information is generally poor in Germany. While insiders are kept well informed by virtue of their close relationship with the board of directors, outsiders face difficulties in obtaining information which are not required to be disclosed by law. With regards to executive pay disclosure, until recently, German firms adopting executive stock option schemes only had to announce their intention in the Federal Bulletin (*Bundesanzeiger*) without providing any details of the schemes. Information on executive pay has however improved. German corporations listing themselves on the American

Stock Exchanges are now required by the SEC in the USA to file proxy statements disclosing details about their stock option plans.

The availability of previously undisclosed data presents an invaluable opportunity to analyse Germany's adoption of executive stock option schemes. By utilising the new available data, this thesis was able to obtain findings which would arguably yield potentially more detail than those inferred from survey data (see Conyon and Schwalbach 1999, Kaplan 1997), thereby extending the scope of knowledge on German executive pay. This section considers the possible contribution these findings may make to the academic debate and any implications it might have for theory, policy, and remuneration practices.

9.2.1 Theory

The literature on corporate governance and convergence contains important disagreements and there exists no study so far which has been able to provide evidence that there is an unambiguous direct link between corporate governance and economic performance, thereby supporting the argument for convergence, in particular the efficiency theory. The balance of opinion and evidence, however, appears to be tilted towards counter-convergence arguments where there are fundamental institutional reasons, as well as legal and political explanations, why convergence in corporate governance systems, especially on the Anglo-American pattern, is not likely. Indeed, the literature has documented that important features of the traditional German corporate

governance system have persisted (Lane 2003, Lane 1999, Pauly and Reich 1997, Dörre 1996, Ruigrok and van Tulder 1995).

Nonetheless, evidence shows that legal reforms are taking place and hostile takeovers and executive stock option schemes are being introduced in Germany thereby raising important convergence questions. Clearly, there is a need for research to be carried out on the actual processes of convergence where there is a possibility of convergence occurring (Branson 2001, Khanna et al. 2002). This thesis thus considers the adoption of executive stock option schemes by German firms against the background of 'functional convergence' and the recent developments in neo-institutional theory which purport to understand change by focusing on induced rather than coercively imposed changes. By combining both these elements, the research attempted to provide a more detailed, more complete, and ultimately more accurate picture of the adoption of a US-style innovation by large German companies.

Emphasising the role of institutions, the research attempted to reintroduce institutional theory, culture, and embeddedness and at the same time, the possibility of changes through inducement from neo-institutional theory into the research framework. While a focus on external forces such as market pressures or network positions has contributed to the understanding of the innovation of US-style executive stock option schemes in Germany, the research highlighted that the shift from one governance model to another may ultimately depend on the institutional, cultural and political influences affecting the actors making the decisions in organisations. These arguments recognise that changes

happen in a largely path dependent way (Bebchuk and Roe 1998, 2000) and the eventual outcome may not be a major transformation but more of a dialectical process (Berndt 1998).

This conclusion may have important implications for all governance performance studies that fail to go behind surface appearances. For example, evident cases of innovation adoption in relation to business strategies such as executive stock option schemes, takeovers, and other human resource management strategies should first be analysed in depth before their equivalence across countries and/or national cultures is assumed. Furthermore, that the traditional binary approach of adoption/non-adoption should not be used in this study as it would not be able differentiate between 'superficial' and 'deep' innovation adoption. Also consistent with translation theory, the state of German executive stock option schemes could additionally be considered as having undergone 'translation' under the influence of different interest groups and among complementary governance institutions. Such translation is addressed in suggestions for future research, below.

Within the executive pay literature, there exists the intriguing theoretical conflict between agency theory and power-based theories on the study of executive compensation. According to the optimal contracting approach, executive compensation can be studied as an instrument for combating the agency problems between managers and dispersed shareholders (Mirrlees 1974, 1976, Holmstrom 1979, Grossman and Hart 1983). On the other hand, managerial power approach regards compensation arrangements as partly a result of agency weaknesses themselves. According to managerial power approach,

executives with some influence over their own pay packages as a result of governance weaknesses are subject to an 'outrage constraint' among commentators and shareholders (Bebchuk et al. 2002). Hence, to camouflage or facilitate the extraction of rents, inefficient pay structures that distort incentives and thus further reduce shareholder value may be employed.

The UK is a 'shareholder economy' and under this form of capitalism, firms are perceived to give priority to maximising shareholders' returns or wealth. In terms of aggregate CEO rewards, it is well known that UK assumes an intermediate position between Germany and the USA. Yet, the findings from this research reveals that, in terms of the detailed characteristics of executive stock option schemes, UK schemes do not appear to be similar to US schemes at all and in fact appeared to be empathically more egalitarian than German schemes themselves.

Executive stock option schemes are only one element in packages of executive rewards, and something has given the UK an intermediate position between Germany and the USA in terms of aggregate executive pay. Executive stock option schemes in the UK have been the subject of a period of exceptionally scrutiny from self-monitoring regulators, the press, financial institutions, and other shareholders. The findings thus suggest that there arises a possibility that perhaps managerial power theory is relevant to the UK scheme of executive compensation. UK executives, because of the 'outrage constraint', may have switched their focus away from options to other elements of pay packages that have escaped close public scrutiny, e.g. bonus plans and long-term incentive plans that do not

involved options. In the USA, and to some extent Germany, an agency theory may be more appropriate, though weak governance may have allowed executives to impose weak conditions on options awards.

9.2.2 Government Policy

Apart from having implications on theory, the research findings may also be significant in that they reaffirm areas of difficulty that policy-makers face when attempting to harmonise or reform corporate governance systems. This is further discussed with specific examples below.

European Union Reforms

The European Union has for quite a while been trying to harmonise governance in various ways, through efforts to standardise accounting conventions and recognise employee participation rights in work councils, and to establish a takeover code. With regards to takeover-bid regulations, efforts have to far been problematic and no agreement has been reached in the European Commission.

In fact, the European Union received a surprise in 2000, when the German government, which had been supporting the broad lines of the European Commission Draft Thirteenth Directive on Company Law Concerning Takeover Bids put forward in 1996, was suddenly seen to change its course dramatically. First, the German government announced it was

opposing the draft, and then it voted the draft down in the European Parliament in 1991 and subsequently passed a law granting managers the right to fend off a hostile approach without consulting shareholders. The European Commission has insisted that regulating takeover bid regulations is a key element in achieving an integrated capital market in the Union by 2005.

The purported importance of regulating takeover bids however can be seen as requiring expedience in governance reform. Where the research results support the proposition that institutions, culture and political influence governance implementations, they offer a plausible explanation as to why the European Union takeover code has taken so long and may never see the light of the day.

The 1998 OECD Principles and Asian Countries

Post-crisis reform is underway through out Asia. In response to the perceived inadequacy of Asian governance models – mainly relational governance through families and networks – resulting in corporate misconduct contributing to the Asian financial crisis, the 1998 Organisation for Economic Co-operation and Development OECD Principles of Corporate Governance were introduced as a replacement for corporate governance systems in Asia, by offering internationally recognised standards of good governance. The standards set out specific guidelines that act as benchmark against which compliance can be measured and it was proposed that they enabled domestic institutions to be developed quicker than would otherwise be possible through self-design.

The problem with the use of these standards however is that many of the concepts included in the best practice standards are founded on Anglo-American ideals and the question arises as to whether the existing systems in Asia were inherently suitable. The findings of this research suggest that corporate governance systems are unlikely to develop according to their own national institutions, culture and political influences. To this end, the adoption of internationally recognised standards of good governance, which has been posited as an appropriate method of reforming perceived problems, may be alternatively viewed as futile attempts of transplanting governance systems.

SEC 14a – 11 Rules to Increase Shareholder Voice in the USA

Corporate governance in the USA is said to be undergoing reform due to the widely publicised cases of corporate failures such as Enron and WorldCom that have compromised investor confidence and weakened financial markets. The Sarbanes – Oxley Act was introduced in 2002 as a ten-point plan to promote corporate responsibility, increased public disclosure, improve the quality and transparency of financial reporting and auditing, and strengthen the penalties for securities law and other violations. In October 2003, building on the Sarbanes-Oxley Act, the SEC proposed rule 14a-11 that would require companies, under certain circumstances to include shareholders' nominees for directors in the company proxy materials. The SEC Commissioner, Harvey Goldschmidt observed, '...we are in the process of shifting the balance of power between corporate managements and shareholders' (Witschey Jr. 2003).

Yet, the rules, when examined closely, appear to be restrictive and would all but rule out investors' ability to get on corporate boards. The president of the board of the California Public Employees' Retirement System writing to the SEC on behalf of itself and eight other separate state representatives thus expressed that 'this rule created the illusion of access and the appearance of reform without offering actual access or real reform' (Hamm 2003). In any case, mutual funds are not owners, they are investors, and investors vote with their feet selling companies they do not like as it is their job to invest the beneficiaries' money in the most profitable investment (Drucker 1976). Furthermore, the compensation of many fund managers is based on how they perform in comparison with their peers and the benchmarks involved are based on quarterly results.

The research finding in this thesis offers that the mere introduction of new legal rules is unlikely to result in sweeping changes in corporate governance practices. It is unlikely that institutional investors will start using their voice to control managers when the US governance system encourages fund managers to trade based on short-term performance and ignore longer-term interests.

German Regulation vs. UK Self Regulations

Finally, the research findings that the UK may have produced option schemes that are more egalitarian than German schemes, in terms of the quantity and quality of performance conditions and the proportion of total shares under option, may be significant for German policy makers in illustrating that self-regulation in the UK appears to have

produced a stricter regime for executive stock option schemes than stakeholder governance and regulation by the State in Germany. This reform was achieved despite prevailing institutions and a national culture of individualism and low tolerance of power distance (see Chapter 3).

While law-based provisions are 'binding by construction' i.e. because of their legal status, standards are voluntary by construction, but can also be binding in practice. Complying with standards can thus be strictly required to be active in a specific market due to peer pressure or market pressure (Padoa-Schioppa 2002). Indeed, in political science, standards and public regulations are viewed as alternatives, and the availability and strength of the different options are used to explain the choice of one over the other. Accordingly, standards have emerged as the primary means of governance where the balance of power has tilted on the side of the industry.

In the UK, self-regulation has been important in promoting transparency and investor protection and corporate governance has been influenced by three major committees investigating the issue of corporate governance and issued reports: The Cadbury Committee, which was established in 1991 in response to a number of large corporate failures (e.g. Polly Peck, BCCI, the Maxwell companies) issued recommendations for a voluntary 'Code of Best Practice' leading to and accountability of the role of the boards; The Greenbury Committee, which was set up in 1995 in response to the public perception that top managers of privatised utilities were receiving excessive pay increases, focused on the issue of determination of executive pay; and The Hampel Committee, the

successor to the Cadbury Committee proposed a 'super-code' combining and updating the Cadbury and Greenbury codes. These Committees comprised CEOs (with Cadbury, Greenbury and Hampel themselves CEOs of large companies) and leaders of profession.

The tradition of self-regulation, while wide ranging in UK and USA, is uncommon in Germany. In Germany, legal protection of outside shareholders appears to be underdeveloped in Germany compared to the UK (La Porta et al. 1996). However, several private initiatives have been taken to develop best-practice principles aiming at German corporate governance code, on the back of the demands of institutional investors and widespread critique of the traditional German corporate governance system. These commissions include: The Commissions of General Principles of Corporate Governance which primarily emphasises legal aspects and provide recommendations based on OECD corporate governance principles; The Berlin Initiative for a German Code of Corporate Governance which takes a broader view on corporate governance as the legal and factual rules for managing and controlling a company; and an official government commission proposing a German Corporate Governance Code covering shareholder value, dual corporate constitution, transparent corporate management and the independence for auditors and supervisory board. Although the German Corporate Governance Code is voluntary in nature, the code is supported by a separate law that forces German companies to say whether they abide by it or not. Where these German codes represent a process-oriented approach, which does not impose a uniform framework for every institution, they have the major benefit of being readily adaptable to dynamic developments taking place in Germany.

9.2.3 Remuneration Practices

Clearly, no form of governance, certainly not US-style stock market capitalism, is appropriate in all contingencies. Different governance systems enable firms and countries to excel at different kind activities and different governance mechanisms can perform equally well in different contingent environments. The findings support the view that institutions, path dependency and culture are important contingencies, and it seems unlikely that firms or governments may be able to pick and mix the optimum governance package, e.g. through governments' regulatory reforms. Hence, while the possibility of genuine institutional change appears real, business strategies should first be analysed in depth before their equivalence across national cultures is assumed. This deeper analysis should be applied to strategies such as executive stock option schemes and other forms of equity-based pay or human resource strategies, and apparently hostile takeovers of other companies.

Indeed, in the case of Germany, because stock option schemes only superficially resemble US-style schemes having been influenced by German institutions and culture, these stock options may not serve to act as they do in the US. That, instead of attempting to provide real incentives for individual managers, they may exist merely to appease international investors, since the announcements of executive stock option schemes has in general a positive influence on share price (Westphal and Zajac 1998). The important implication of this is that international investors attracted to invest in German companies implementing executive stock option schemes may consequently find themselves investing in companies which might not only fail to align senior managers' interests to shareholders in terms of maximising shareholder values, but are also burdened with

additional agency costs where shareholder value is redistributed in favour of managers. For the same reason, this research may itself help to make international investors more aware of the differences between German option schemes at a surface and deeper level.

9.3 Limitations and Future Research

This section considers the limitations of this research and makes a number of suggestions for future research.

9.3.1 Limitations

The present study has certain quite obvious limitations that need to be taken into account when considering the overall study and its contribution. Firstly, the study was performed when the adoption of executive stock option scheme by German companies was at an early stage and the data obtained only related to one financial year. Although it was considered important to analyse German executive stock option schemes when information was made available, enabling initial studies to be conducted in German executive stock option schemes, it could also be argued that research examining these schemes at a later stage would have revealed more. The adoption of a foreign innovation at a deeper level takes time and research, which analysed data for more than one point in time or involved data of several years which would arguable be able to reveal whether differences between German, US and UK executive stock option schemes are maintaining themselves, or lessening, over time. Indeed, Chapter 8 revealed that

subsequent studies on German corporations contained in the case-studies such as Deutsche Bank, Deutsche Telekom, and SAP have been observed to have replaced their 2000 executive share option schemes with plans attaching different performance conditions such as absolute share price increase.

Secondly, the scope and content of this study were constrained by the low level of disclosure of German executive compensation package. While fourteen German companies do disclose some information relating to their stock option schemes, information regarding the number of stock options awarded to individual senior executives and identification of senior executives remained elusive. As previously highlighted, the researcher did not succeed in obtaining information even regarding the mere number of participating executives in one of the German case-study (SAP). On the other hand, where information disclosure relating to the stock option awards in Germany has improved, the availability of new information provides crucial means by which theory relating to German pay can be finally tested.

Thirdly, although the research attempted to derive some generalisations by conducting pattern-matching, there is a risk of value judgements and interpretive discretion on the part of the researcher, which might have created problems. Research may be overly restrictive in claiming a pattern to have been violated or conversely, may be too lenient. Recognising that there is not precise way of setting the criteria for comparisons, the research thus attempted to improve the quality of pattern-matching by developing semi-

quantitative measures while constructing theories and analysing case-study evidence as elaborated in Chapter 6.

Finally, it is also difficult to claim at this stage any absolute analytical generalisation from the pattern-matching method. The results from pattern-matching, while rich in individual case-study evidence, are not statistically significant and are in need of subsequent significance tests. Of course, the number of German companies disclosing information on their executive stock option schemes was found to be only fourteen in this study, and statistical testing may only be possible when sample size increases and more information is forthcoming. For this reason, this research can only be seen as a kind of pilot study in the analysis of German executive pay in the form of stock option schemes.

9.3.2 Future Research

The conclusions, as well as limitations of this study, suggest some interesting possible avenues for future research. Firstly, it is proposed that when sample size builds up, longitudinal research be carried out employing statistical significance tests to obtain more concrete analytical generalisations for German executive pay and for any possible convergence. Sample size is expected to increase because a higher level of disclosure is expected to occur in Germany in the following months and years for the following reasons: Firstly, more German companies are expected to list their shares on the stock exchange and issue Type II and III ADRs as well as adopt US GAAP. Secondly, the International Accounting System (IAS) board proposed in 2002 that firms using IAS have to disclose

similar information on compensation as US GAAP starting financial year 2004 and this is further expected to influence the accounting system in Germany (HGB). Thirdly, the voluntary corporate governance code recommends that German companies disclose executive pay details such as executive stock option schemes, conditions and individual director pay on their websites. Indeed, in 2002, several of the DAX 30 companies, such as Deutsche Bank, Commerzbank, Infineon, Metro, Schering and Thyssen Krupp started disclosing executive pay details on their company websites.

It is thus suggested that in the future, two long-term research projects be carried out. Firstly, it is proposed that databases of large numbers of companies in Germany and the USA be assembled (say $n > 100$ for each country). With a particular executive stock option scheme character taken from Proposition 1 to Proposition 5 as the dependent variable, regressions could proceed with size, industry, performance, and country dummies as independent variables. Significant coefficients on the German country dummy would denote rejection or otherwise of Hypothesis 1 to Hypotheses 5 and hence conclusions on whether German executive stock option schemes represent convergence on US-style governance. An alternative proposal is to compile two smaller sets of data of German and US companies which are nevertheless big enough to obtain matching pairs to control for size and industry and carry out t-tests to the means of the samples similar to the study carried out by Combs and Skills (2003).

An important consideration when conducting this test is to improve the variables that measure the characteristics of the remunerations schemes. The findings obtained from this case-study demonstrated that German firms cannot be categorised according to whether they have executive stock option schemes or not (with the traditional binary approach of adoption/non-adoption or zero/dummies) as they do not differentiate between 'superficial' and 'deep' adoption; i.e. they will not be able to reveal the real extent to which the innovation has been employed. To this end, the matched case-study comparison serves as a useful initial methodology to measure the deeper nature of option schemes. For example, it suggests that future research may need to take into account the severity of performance conditions not only in terms of the form of the performance condition (TSR v EPS, etc) but also the demanding nature of the target in terms of the firm's recent achievements. The idiosyncratic German use of convertible bonds, associated with various discounts and premiums, should also be embraced as variations on more universally accepted performance conditions. Finally, recent changes in the option schemes and company circumstances (e.g. state ownership increased ownership by US institutions) must also be factored into the analysis, rather than taking a blanket, cross-section view.

Secondly, besides providing support for counter-convergence theories, the findings obtained from the analysis also indicate support for the suggestion by Buck, Shahrin and Winters (2004) that the adoption of executive stock option schemes by German companies could be analysed in future as an 'organisational innovation'. According to translation theory, all innovations are viewed as outcomes of negotiation processes

between organisations and people. This is because innovation has to go by 'passing points' in a network and be transformed or translated to suit the legitimate interest groups (Latour 1996) in a way that reflects their own role, context, and intentions. Although permanent struggle is expected, the adoption and translation of an innovation may conceal its embeddedness in antecedent culture, institutions, and knowledge structures through shrew camouflage (Rottenburg 1996).

Thirdly, it is proposed that where this thesis has been concerned with large firms, future research should be extended to the study of small firms. Much research has been conducted examining the differences between large and small firms. Small firms, including start-ups (typically small) have been found to have a liability of newness (Stinchcombe 1965, Baum 1996, Hannan and Freeman 1984) and a liability of smallness (Hannan and Freeman 1984, Aldrich and Auster 1986, Baum 1996). Corollary to these views, large established firms have been found to have a liability of obsolescence suggesting that established firms' failure rates increased with ages, as they become inertial and their original fit with the environment erodes (Baum 1989). Relating this to concern of fit to innovation, Dougherty (1996) finds that established organisations have problems in innovating effectively.

Thus, within the innovation-diffusion literature, Dougherty and Hardy (1995) emphasises the role of new entrants and small firms at the periphery of an industry as change agents and early adopters. This would imply that studies of German executive stock option

scheme should be extended to small firms on the *Neuer Markt* (and its recent replacements) for evidence of the radical adoption of US-style executive pay packages.

Finally, it could also be interesting to extend this study to more countries, such as family-based capitalism in South East Asia. Theoretically, the concept of a family-based corporate governance system can be contrasted with the predominantly bank-based system of Germany and the market-based systems of US and UK. While both bank-based and market-based systems are closely associated with the dominant modes of corporate finance by banks and equity markets, the family-based system is known to be first financed largely by internal funds and then later to obtain funds from borrowing and raising capital by issuing stocks (Khan 1999). Even with large doses of external finance, family groups still control the governance aspects resulting in an asymmetry of information between the outside financiers and the inside owner-managers. Where executive stock option schemes seem to have been adopted by larger corporations in South East Asia, future research based on the advancement provided by this research could be undertaken to ascertain the characteristics of the executive stock option schemes adopted and whether South-East Asian countries, like UK and German corporations have resisted the blind adoption of a US-style governance innovation.

References

- Alcouffe, A. and Alcouffe, C. (2000) 'Executive Compensation Setting Practices in France', *Long Range Planning*, vol. 33, issue 4, pp. 527-543
- Aldrich, H. (1999) *Organisations Evolving*, Sage Publications: London
- Abowd, J. and Bognanno, M. (1995) 'International Differences in Executive and Managerial Compensation' in Freeman, R. and Katz, L. (eds.), *Differences and Changes in Wage Structures*, pp. 67-103 University of Chicago Press: Chicago
- Abowd, J. and Kaplan, D. (1999), 'Executive Compensation: Six Questions That Need Answering,' *Journal of Economic Perspectives*, vol. 13, pp.145-68
- Allen, F. and Gale, D. (2000), 'Corporate Governance and Competition' in Vives, X., (ed.) *Corporate Governance: Theoretical and Empirical Perspective*. Cambridge University Press: Cambridge
- Alexander, L. (2000) 'Debating European Corporate Governance Issues', *The Conference Board Research Report SR-00-1 May*
- Andrews, D. (1994) 'Capital Mobility and State Autonomy - Toward A Structural Theory of International Monetary Relations', *International Studies Quarterly*, vol. 38, no. 2, pp.193-218
- Andrews, E. (2000) 'The metamorphosis of "Germany Inc."', *New York Times*, 12 March 2000, sec. 3, p. 1
- Aoki, M. and Patrick, H. (1994) *The Japanese Main Bank System: Its Relevance for Developing and Transforming Economies*. Oxford University Press: New York
- Baker, G., Jensen, M. and Murphy, K. (1988) 'Compensation and Incentives: Practices vs. Theory', *Journal of Finance*, vol. 43, pp. 593-616

Baum, J. (1996) 'Organizational Ecology' in Clegg, S., Hardy, C. and Nord, W. (eds) *Handbook of Organizational Studies* Sage Publications: London

Baum, T. (1995) 'anwendungsbereich, Kollision und Abstimmung von Kapitalmarktrechten' in Raisch, P., *Unternehmen, Recht und Wirtschaftsordnung*, pp. 211-222 Köln/Berlin/Bonn/München

Bayer, J. and Hassel, A. (2002), 'The Effects of Convergence: Internationalization and the Changing Distribution of Net Value Added in Larger German Firms', *Economy and Society*, vol. 31, no.3, pp. 309-332

Bebchuk, L. and Roe, M. (1998), 'A Theory of Path Dependence in Corporate Ownership and Governance' in *Corporate Governance Today, The Sloan Project on Corporate Governance at Columbia Law School*, pp. 575-599. Columbia Law School: New York

Bebchuk, L., Fried, J. and Walker, D. (2002) 'Managerial Power and Rent Extraction on the Design of Executive Compensation', *University of Chicago Law Review*, vol. 69, pp. 751-846

Becker, F. (1990) *Areizsysteme für Führungskräfte: Möglichkeiten zur strategisch orientierten Steuerung des Managements*, Stuttgart

Berger, S. (1996) 'Introduction' in Berger, S and Dore, R., (eds.), *National Diversity and Global Capitalism*, pp.1-25 Cornell University Press: New York

Begley, T. and Tan W.L. (2001) 'The Socio-Cultural Environment for Entrepreneurialship: A Comparison between East Asian and Anglo-Saxon Countries' *Journal of International Business Studies*, vol.32(3), pp.537-553

Berle, A. and Means, G. (1932) *The Modern Corporation and Private Property*. Macmillan: New York

Berndt, C. (1998) 'Corporate Germany at the Crossroads? Americanisation, Competitiveness and Place Dependence', *Economic and Social Research Council Centre for Business Research Working Paper No. 98*, University of Cambridge: Cambridge

Bernhardt, W. (1999) 'Stock Options For or Against Shareholder Value? New Compensation Plans for Top Management and the Interests of Shareholders', *International Journal of Corporate Governance*, vol.7, no. 2, pp. 123-135

Becht, M. and Röell, A. (1999) 'Blockholdings in Europe: An International Comparison', *European Economic Review*, vol.43, pp.1049-1056

Beyer, Jürgen (2002) 'Deutschland AG a.D: Deutsche Bank, Allianz und das Verflechtungszentrum großer deutscher Unternehmen', *MPIfG, Working Paper 2002/4*. Max Planck Institute for the Study of Societies: Cologne

Biggart, N. and Guillén, M. (2000) 'Developing Difference: Socetal organization and the Rise of the Auto Industries in South Korea, Taiwan, Spain and Argentina', *American Sociological Review*, vol. 64, no. 5, pp. 722-747

Bishop, M. (1994) 'Watching the Boss: A Survey of Corporate Governance', *Economist*, 29 January 1994

Black, L. (2000) 'US Boss is Worth More than His Weight in Gold', *Sunday Business*, July 16, 2000, p. 5

Blair, M. (1995) *Ownership and Control: Rethinking Corporate Governance for the Twenty-First Century*. The Brookings Institution: Washington, D.C.

Bleicher, K. and Paul, H. (1989), *Unternehmensverfassung und Spitzenorganistion. Führung und Überwachung von Aktiengesellschaft im internationalen Vergleich*. Wiesbaden

Bloch, B. (1998) 'Globalisation's Assault on the Labour Market: A German Perspective', *European Business Review*, vol. 98, no.1, pp.13-24

Bolkestein, F. (1999) 'The High Road that Leads Out of the Low Countries', *Economist*, 22 May 1999, p.115

Brancato, C. (2000) 'Corporations outside US Become More Subject to Investor Demands', *Corporate Governance Advisor*, July/August, p.1

Bratton, W. and McCahery, A. (1999) 'Comparative Corporate Governance and Theory of the Firm: The Case against Global Cross Reference', *Journal of Transnational Law*, vol. 38, pp.213-236

Brickley, J., Bhagat, S. and Lease, R. (1985) 'The Impact of Long-Range Managerial Compensation Plans of Shareholder Wealth', *Journal of Accounting and Economics*, vol. 7, pp. 115-129

Bruce, A and Buck, T. (1996) 'Total Board Remuneration and Company Performance', *Economic Journal*, 106/439, pp.1627-1644

Bruce, A. and Buck, T. (1997) 'Executive Reward and Corporate Governance' in Keasey, K., Thompson, S. and Wright, M. (eds.), *Corporate Governance Economic, Management and Financial Issues*, pp. 80-102. Oxford University Press: Oxford

Buck, T. and Tull, M. (2000) 'Anglo-American Contributions to Japanese and German Corporate Governance after World War Two', *Business History*, vol. 42, no. 2 pp. 119-140

Buck, T., Shahrin, A and Stefan, W. (2004) 'Executive Stock Options in Germany: The Diffusion or Translation of US-Style Corporate Governance' *Journal of Management and Governance*, vol. 8, pp.173-186

- Buhner, R., Rasheed, A., Rosenstein, J., and Yoshikawa, T. (1998) 'Research on Corporate Governance: A comparison of Germany, Japan and the United States', *Advances in International Comparative Management*, vol. 12, pp.121-155
- Bushman, R., Piotroski J., and Smith, A. (2003) 'What determines Corporate Transparency', *Journal of Accounting Research*, vol. 42, no.2, pp.207
- Branson, D. (2001) 'The Very Uncertain Prospect of Global Convergence in Corporate Governance', *Cornell International Law Journal*, 34, pp.321-362
- Brouthers, K. (2002), 'Institutional, Cultural and Transaction Cost Influences on Entry Mode Choice and Performance', *Journal of International Business Studies*, vol. 33, no. 2, pp.203-221
- Campbell, D. and Stanley, J. (1963) *Experimental and Quasi-Experimental Designs for Research*. Houghton Mifflin Company: Boston
- Cerny, P. (1996) 'Globalization, Governance and Complexity' in Prakash, A. and Hart, J (eds.), *Globalization and Governance*, p. 190, Routledge Press: London
- Charkham, J. (1995) *Keeping Good Company: A Study of Corporate Governance in Five Countries*. Oxford University Press: Oxford
- Cheffins, B. (1999) 'Current Trends in Corporate Governance: Going from London to Milan via Toronto', *Duke Journal of Comparative and International Law*, vol. 10, pp. 5-42
- Cheffins, B. (2001) 'The Metamorphosis of "Germany Inc."': The Case of Executive Pay, *American Journal of Comparative Law*, vol.49, pp 497-539
- Cheffins, B. (2003) 'Will Executive Pay Globalise Along American Lines?' *Corporate Governance: An International Review*, vol. 11, no. 1, pp. 8-24

The Conference Board (1999) 'US Institutional Investors Continue to Dominate Overseas Markets' *The Conference Board Report*, 6 May 1999

Child, J. and Smith, C. (1987) 'The Context and Process of Organizational Transformation', *Journal of Management Studies*, vol. 24, pp. 565-593

Coffee, J. (1999) 'The Future as History: The prospects for Global Convergence in Corporate Governance and its Implications', *Working Paper No. 144* Columbia Law School Centre for Law and Economic Studies

Coffee, J. (2001) 'Convergence and Its Critics: What are the Preconditions to the Separation of Ownership and Control?' *Convergence and Diversity in Corporate Governance Regimes and Capital Markets*, Oxford University Press: Oxford

Combs, J. and Skill, M. (2003) 'Managerialist and Human Capital Explanations for Key Executive Pay Premiums: A Contingency Perspective', *Academy of Management Journal*, vol. 46, pp. 63-73

Conyon, M. and Murphy, K. (2000) 'The Prince and the Pauper? CEO Pay in the United States and the United Kingdom', *Economic Journal*, vol. 199 pp. 640-671

Conyon, M. and Schwalbach, J. (2000a) 'European Differences in Executive Pay and Corporate Governance', *ZfB-Erganzungsheft*, vol. 1, pp. 97-114

Conyon, M. and Schwalbach, J. (2000b) 'Executive Compensation: Evidence from the UK and German', *Long Range Planning*, vol. 33, no.4, pp. 504-526

Conyon, M. and Sadler, G. (2001) 'Compensation, Option Incentives and Information Disclosure', *Review of Financial Economics*, vol. 10, pp.251-277

Coughlan, A. and Schmidt, R. (1985) 'Executive Compensation, Management Turnover, Firm Performance: An Empirical Investigation', *Journal of Accounting and Economics*, vol. 7, pp. 43-66

Crang, P. (1997) 'Introduction: Cultural Turns and the (Re) Constitution of Economic Geography' in Lee, R. and Wils, J. (eds) *Geographies of Economies*. Pp. 3-15. Edward Arnold: London

Cresswell, J. (1994). *Research Design: Qualitative and Quantitative Approaches* Sage Publications: Thousand Oaks, CA

Davis, G. and Thompson, T. (1994) 'A Social Movement Perspective on Corporate Control', *Administrative Science Quarterly*, vol. 39, no. 2, pp.141-173

De Jong, H. (1989) 'The takeover market in Europe: control structures and the performance of large companies compared', *Review of Industrial Organization*, vol. 6, pp. 1-18

Deeg, R. (1991) 'Banks and the State in Germany: The critical role of Sub-National Institutions in Economic Governance', *unpublished PhD Dissertation*, Cambridge, MA, MIT

Deeg, R. and Lutz, S. (2000) 'Internalization and Financial Federalism: the United States and Germany at the Crossroads?' *Comparative Political Studies*, vol. 33, no.3, pp. 374-405

Demsetz, H. (1983) 'The Structure of Ownership and the Theory of the Firm', *Journal of Law and Economics*, vol. 26, pp. 375-390

Denscombe, M. (1998) *The Good Research Guide for Small-Scale Social Research Projects*. Open University Press: Buckingham

Denzin, N. (1970) *The Research Act: A Theoretical Introduction to Sociological Methods*. McGraw Hill: New York

Deutsche Bank Research (2001) 'Corporate Governance in Germany', *Bulletin* no. 4, pp. 18-29

Deutsche Bank (2001) 'Item 11 and 12' *Report of the Board of Managing Directors to the General Meeting*, 2001.

Deutsche Telekom (2000) 'Items 7 and 8' *Report of the Board of Managing Directors to the General Meeting*, 2000.

DiMaggio, P. and Powell, W. (1983) 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organisational Fields', *American Sociological Review*, vol. 48, no.2, pp. 147-160

DiMaggio, P. and Powell, W. (1991) 'Introduction' in DiMaggio, P. and Powell, W. (ed.), *The New Institutionalism in Organizational Analysis*. The University of Chicago Press: Chicago

Djelic, M. (1998), *Exporting the American Model*. Oxford University Press: Oxford

Donkin, (1999) 'Riches for the few', *Financial Times*, 26 February 1999, p.9

Dörre, K (1996) 'Globastrategien von Unternehmen - ein Desintegrationsphänomen? Zu den Auswirkungen grenzüberschreitender Unternehmensaktivitäten auf die industriellen Beziehungen', *SOFI-Mitteilungen*, vol. 24, pp.15-28

Dougherty, D. (1996) 'Organizing for Innovation' in Clegg, S., Hardy, C. and Nord, W. (eds) *Handbook of Organizational Studies* Sage Publications: London

Dougherty, D. and Hardy, C. (1995) 'Sustained Product Innovation in Large Mature Corporations', *Academy of Management Journal*, vol. 39, issue 5, pp. 1120-1153

Drucker, P. (1976) *The Unseen Revolution: How Pension Fund Socialism Came to America*. Heinemann: London

Dubin, R. (1978) *Theory Building*. The Free Press: New York

Easterbrook, F. and Fischel, D. (1991) *The Economic Structure of Corporate Law*, Harvard University Press: Cambridge, MA

Easterby-Smith, M., Thorpe, R. and Lowe, A. (1991) *Management Research: An Introduction*. Sage Publications: London

Economist (1995), 'The Mittlestand Meets the Grim Reaper', *Economist US Edition*, 16 December 1995

Economist (1996), 'Industry in Germany – has it changed?' *Economist*, 6 April 1996

Economist (2000), 'Bidding for the Future', *Economist*, 12 February 2000 p.97-98

Eglau, H. (1997) 'Sahnehauben aufs Gehalt: Mit Aktienoptionen können Manager ihr Einkommen erheblich verbessern', *Die Zeit*, Nr. 2, 16

Eisenhardt, K. (1989) 'Building Theories from Case-study Research', *Academy of Management Review*, vol. 14, no. 4, pp 532-550

Eisenhardt, K. (1989) 'Agency Theory: An Assessment and Review', *Academy of Management Review*, vol. 14, no.1, pp 57-74

Epstein, G. (1996) 'International Capital Mobility and the Scope for National Economic Management' in Boyer, R. and Drache, D. (eds.) *States against Markets: The Limits of Globalization*. Routledge: London

Eriksson, T. (2000) 'What Determines Manager Pay?' *Long Range Planning*, vol. 33, no. 4, pp.544-559

Fama, E. and Jensen, M. (1983a) 'Separation of Ownership and Control', *Journal of Law and Economics*, vol. 26, no.2, pp. 301-326

Fama, E. and Jensen, M. (1983b) 'Agency Problems and Residual Claims', *Journal of Law and Economics*, vol. 26, no.2, pp. 327-349

Ferrarini, G., Moloney, N. and Vespro, C. (2003) Executive Remuneration in the EU, *Comparative Law and Practice ECG Institute Working Paper*, No. 9/2003

Ferner, A. (1997) 'Country of Origin Effects and HRM in Multinational Companies', *Human Resource Management Journal*, vol. 7, no. 1, pp. 19-37

Ferner, A. and Varul, M. (2000) 'Vanguard Subsidiaries and the Diffusion of New Practices: A Case-Study of German Multinationals', *British Journal of Industrial Relations*, vol. 38, pp. 115-140

Fenby, J., 'German Business Throws Off Shackles of the Past' *Sunday Business* 13 August 2000 at p. 20

Fligstein, N. (1991) 'The Structural Transformation of American Industry: An Institutional Account of the Causes of Diversification in the Largest Firms 1919-1979' in Powell, W. and DiMaggio, P. (eds), *The New Institutionalism in Organizational Analysis*, pp. 311-336. University of Chicago Press: Chicago

Flynn, J. and Naik, G. (2000) 'Vodafone CEO's Bonuses Meets Resistance', *Wall Street Journal*, July 11, 2000, p. A23

Forbes, T. and Watson, R. (1993) 'Managerial Remuneration and Corporate Governance: A Review of the Issues, Evidence, and Cadbury Committee Proposals', *Accounting and Business Research*, vol. 23, pp. 331-338

Fortune (2001), 'Fortune 2001 Global 500', *Fortune*, 23 July, 2001, pp. F1-F43

Financial Times (1993) 'A Shine on its Financial Face – Domestic and Foreign Pressures are Forcing Reform on Germany's Capital Market', *Financial Times*, 14 July 1993

Gerlach, M. (1992) *Alliance Capitalism: The Social Organization of Japanese Business*. University of California Press: Berkeley, CA

Gordon, J. (1998) 'Deutsche Telekom, German Corporate Governance and the Transition Costs of Capitalism', *Columbia Business Law Review*, pp.185-200

Granovetter, M. (1985) 'Economic Action and Social Structure: the Problem of Embeddedness', *American Journal of Sociology*, vol. 19, no. 3, pp. 481-510

Greenwood, R., Suddaby, R. and Hinings, C. (2002) 'Theorising Change: The Role of Professional Associations in the Transformation of Institutionalized Fields', *Academy of Management Journal*, vol.45, no.1, pp. 58-80

Greenwood, R., and Hinings, C. (1996) 'Understanding Radical Organizational Change: Bringing Together the Old and the New Institutionalism', *Academy of Management Journal*, vol.21, no.4, pp. 1022-1054

Gribben, R. (1999) 'Investors Champion Boardroom Pay Rises', *Telegraph*, 19 July 1999, p. 27

Gross, S. and Wingerup, P. (1999) 'Global Pay? Not Yet', *Compensation and Benefits Review*, July-August 1999, pp. 25-34

Grossman, S. and Hart, O. (1982) 'Corporate Financial Structure and Managerial Incentives' in McCall, J. (ed.), *The Economics of Information and Uncertainty*. University of Chicago Press: Chicago

Grossman, S. and Hart, O. (1983) 'An Analysis of the Principal Agent Problem', *Econometrica*, vol. 51, pp. 7-45

Guillén, M. (1999) 'Corporate governance and globalization: Arguments and evidence against convergence', *Working Paper of the Reginald H. Jones Centre 99-11*, University of Pennsylvania: Pennsylvania

Guillén, M. (2000) 'Corporate Governance and Globalization: Is There Convergence across Countries?' *Working Paper*, <http://www-management.wharton.upenn.edu/guillen/>.

Hakim, C. (2000) *Research Design: Successful Designs for Social and Economic Research*. Routledge: London

Hall, P. and Gingerich, D. (2001), 'Varieties of Capitalism and Institutional Complementaries in the Macroeconomy: An Empirical Analysis', *Paper presented at the American Political Science Association Conference*. San Francisco

Hall, B. and Murphy, K. (2000), 'Optimal Exercise Prices for Executive Share Options', *American Economic Review*, Vol. 90, no. 2, pp. 209-214.

Hamm, A. (2003) 'Companies, Investors both Blast SEC's Board Reform Idea', *Business Journal*, 17 October 2003

Hannan, M. and Freeman, J. (1984) 'Structural Inertia and Organizational Change', *American Sociological Review*, vol. 49, pp. 149-164

Hansmann, H. (1996) *The Ownership of Enterprise*. Cambridge, MA: Harvard University Press

Hansmann, H and Kraakman, R. (2002) 'The End of History for Corporate Law' in Gordon, J. and Roe, M. (eds.), *Are Corporate Governance Systems Converging?* Oxford University Press: Oxford

Heard, (1995) 'Executive Compensation: Perspective of the Institutional Investor' *University Cincinnati Law Review*, vol. 63, pp.749-767

Hofstede, G. (1997) *Culture's Consequences: International Differences in Work-Related Values*, Sage Publications: Beverly Hills

Holderness, C., Kroszner, R. and Sheehan, D. (1999) 'Were the Good old Days that Good? Changes in Managerial Stock Ownership since the Great Depression', *Journal of Finance*, vol. 54, no. 2, pp 435-469

Hollingsworth, J., Schmitter, P. and Streeck W. (1994) 'Capitalism, Sectors, Institutions and Performance' in Hollingsworth, J., Schmitter, P. and W. Streeck (eds.), *Governing Capitalist Economies: Performance and Control of Economic Sectors*, pp. 3-16. Oxford University Press: Oxford

Holmstrom, B. (1979) 'Moral Hazard and Observability', *The Bell Journal of Economics*, vol.10, pp. 74-91

Holmstrom, B. and Milgrom, P. (1987) Aggregation and Linearity in the Provision of Intertemporal Incentives, *Econometrica*, vol. 55, pp. 303-328

Hopt, K. (1994) 'Labor representation on corporate boards: Impacts and Problems for Corporate Governance and Economic Integration in Europe', *International Review Law Economics*, vol. 14, pp 203-208

Ibbotson, R. and Brinson, G. (1993), *Global Investing*. McGraw-Hill: New York

IMF (1999), 'IMF Supported Program in Indonesia, Korea and Thailand', *IMF Occasional Paper*, No. 178

Jackson, G. (2001) 'The Origins of Nonliberal Corporate Governance' in *The Origins of Nonliberal Capitalism Germany and Japan in Comparison* in Streeck, W. and Yamamura, K. (eds.) pp.121-170 Cornell University Press: London

Jacobi, O., Keller, B. and Mueller-Jentsch, W. (1992) 'Germany: Codetermining the Future' in Ferner, A. and Hyman, R. (eds), *Industrial Relations in Europe*, Oxford: Blackwell: 218-269

Jackson, G. and Höpner, M. (2001) 'An Emerging Market for Corporate Control? The Mannesmann Takeover and German Corporate Governance', *Discussion Paper 01/4*, Max-Planck Institut für Gesellschaftsforschung, Köln

Jenkinson, T. and Ljungquist, A. (2001) 'The Role of Hostile Stakes in German Corporate Governance', *Journal of Corporate Finance*, vol. 7, pp. 397-446

Jensen, M. (1986) 'Agency Costs of Free Cash Flow, Corporate Finance and Takeovers', *American Economic Review*, vol. 76 pp. 323-29

Jensen, M. (1993) 'The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems', *Journal of Finance*, vol. 48, pp. 831-880

Jensen, M. and Meckling, W. (1976) 'Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure', *Journal of Financial Economics*, vol. 3, pp. 305-360

Jepperson, R. (1991) 'Institutions, Institutional Effects, and Institutionalism' in Powell, W. and DiMaggio, P. (eds.), pp. 143-163. *The New Institutionalism in Organizational Analysis*. The University of Chicago Press: Chicago and London

Jepperson, R. and Meyer, J. (1991) 'The Public Order and the Construction of Formal Organizations' in Powell, W. and DiMaggio, P. (eds.), pp. 204-231. *The New Institutionalism in Organizational Analysis*. The University of Chicago Press: Chicago and London

Jürgen, U., Rupp, J., Vitols, K. with the collaboration of Caspar, J. and Jäsche-Werthmann, B. (2002) 'The German System of Corporate Governance Characteristics and Changes', *WZB Discussion Papers FS II 02-203*. Berlin: Wissenschaftszentrum Berlin

Johnston, D. (1998) European and Asian Executives Start to Get US-Style Pay Packages, *New York Times*, 3 September 1998, p. C1

Kaplan, R. (1982) *Advanced Management Accounting*, Englewood Cliffs, NJ: Prentice Hall

Kelly, J. and Parker, A. (1999) 'Top Pay Limits Should be higher if linked to Results', *Financial Times*, 19 July 1999, p. 11

Kester, W. (1996) 'American and Japanese Corporate Governance: Convergence to Best Practice?' in Berger, S and Dore, R., (eds.), *National Diversity and Global Capitalism*, pp.1-25, Ithaca, Cornell University Press: New York

Khan, H. (1999) 'Corporate Governance of Family Businesses in Asia: What's Right and What's Wrong?' *ADB Working Paper No. 3*

Khanna, T. and Palepu, K. (2001), 'Product and labor market globalization and convergence of corporate governance: Evidence from Infosys and the Indian Software Industry', *Harvard University Working Paper*, Harvard Business School

Khanna, T. Palepu, K. and Srinivasan, S. (2003), 'Disclosure Practices of Foreign Companies Interacting with US Markets', *Harvard University Working Paper Series*, No 03-081, Harvard Business School

Kim, H. and Hoskisson, R. (1996) 'Japanese Governance Systems: A Critical Review, Advances', *International Comparative Management*, vol. 11, pp.165-189

La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (1999) 'Corporate Ownership Around the World', *Journal of Finance*, vol. 54, no. 2, pp. 471-517

La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2000) 'Investor Protection and Corporate Governance', *Journal of Financial Economics*, vol. 58, no. 1, pp 1-25

La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (1998) 'Law and Finance', *Journal of Political Economy*, 106, pp. 1113-1155.

La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (1999) 'Corporate Ownership Around the World', *Journal of Finance*, vol. 54, no. 2, pp. 471-517.

Lambert, R., Larcker, W. and Larcker, D. (1989) 'Executive Stock Option Plans and Corporate Dividend Policy', *Journal of Financial and Quantitative Analysis*, vol. 24, pp. 409-25

Lane, C. (2003) 'Changes in Corporate Governance of German Corporations: Convergence to the Anglo-American Model?' *Working Paper No. 259*, ESRC Centre for Business Research, University of Cambridge

Lane, C. (1999) 'Globalization and the German Model of Capitalism - Erosion or Survival?' *Paper presented to 15th EGOS Colloquium, University of Warwick, 4-6th July*

Latour, B. (1996) *Aramis or the Love of Technology*. Harvard University Press: Cambridge MA

Lazonick, W. and O'Sullivan, M. (2000) 'Maximizing Shareholder Value: A New Ideology for Corporate Governance', *Economy and Society*, vol. 29, no. 1, pp. 13-35

Lewellen, W., Lodere, C., and Martin, K. (1987) 'Executive Compensation and Executive Incentive Problems: An Empirical Analysis', *Journal of Accounting and Economics*, vol.9, pp. 287-310

Lewin, A., Long, C. and Carroll, T. (1999), 'The Coevolution of New Organizational Forms', *Organizational Science*, vol.10, no.5, pp.535-550

Lewin, A., Kim, J., and Weigelt, C. (2004), 'The Nation-state and Culture as Influences on Organizational Change and Innovation', in Poole, M. and van de Ven, A. (eds.), *Handbook of Organizational Change and Development*, Oxford: Oxford University Press, forthcoming.

Licht, A. (2001) 'The Mother of All Path Dependencies: Towards a Cross-Cultural Theory of Corporate Governance System' *Delaware Journal of Corporate Law*, vol. 26, pp. 147-205

Licht, A., Goldschmidt, C., and Schwartz, S. (2003) 'Culture, Law and Corporate Governance', *Radzyner School of Law Working Paper*, Interdisciplinary Center: Herzliya

Loredo, E. and Suárez, E. (1998) 'Corporate Governance in Europe: Is Convergence Desirable?' *International Journal of Management* vol. 15, pp. 525-532

Lowe, S. (1998) 'Culture and Network Institutions in Hong Kong: A Hierarchy of Perspectives', *Organization Studies*, vol.19, no.2, pp.321-343

Macey, J. and Miller, G. (1997) 'Universal Banks are Not the Answer to America's Corporate Governance 'Problem': A look at Germany, Japan and the US', *Journal of Applied Corporate Finance*, vol. 9, no. 4, pp. 57-73

Major, T. (2000) 'German Industry Must Open its heart', *Financial Times*, 8 February 2000 at p. 32

Mangel. R. and Singh, H. (1993) 'Ownership Structure, Board Relationships and CEO Compensation in Large US Corporations', *Accounting and Business Research*, vol.23. pp. 339-350

Manne, H. (1965) 'Mergers and the Market for Corporate Control', *Journal of Political Economy*, vol. 73, pp. 110-120

Marino, B. (1999) 'Executive Compensation and the Misplaced Emphasis on Increasing Shareholder Access to the Proxy', *University of Pennsylvania Law Review* no. 127, pp.1205-1231

Marshall, A. (1920) *Principles of Economic* (8th ed.) Macmillan: London

Marshall, C. and Rossman, G. (1999) *Designing Qualitative Research* (3rd ed.) Sage Publications: London

Mason, J. (1996) *Qualitative Researching* Sage Publications: London

Mayer, M. and Whittington, R. (1999) 'Strategy Structure and Systemness': National Institutions and Corporate Change in France, Germany and the UK, 1950-1993', *Organization Studies*, Vol.20, No. 6, pp.933-959

Meyer, J. and Rowan, B. (1977) 'Institutionalized Organizations: Formal Structure as Myth and Ceremony', *American Journal of Sociology*, vol. 83, no. 2, pp. 340-363

Mc Dowell, L. (1994) 'The Transformation of Cultural Geography' in Gregory, D., Martin, R. and Smith, G. (eds.) *Human Geography: Society, Space, and Social Science*, University of Minnesota Press: Minneapolis

McKnight, P. and Tomkins, C. (1999) 'Top Executive Pay in the United Kingdom: A Corporate Governance Dilemma', *International Journal of the Economics of Business*, vol.6, no.2, pp 223-243

Megginson, W. (2000) 'Corporate Governance in Publicly-Quoted Privatised Companies', *Paper presented at the O.E.C.D conference Corporate Governance of State-Owned Enterprises in China, Jan 18-19*, OECD: Beijing

Melloan, G. (2000) 'Europe's New Shareholder Culture Spurs Big Changes', *Wall Street Journal* May 9, 2000, p. a27

Miles, M. and Huberman, M. (1994) *Qualitative data analysis: An expanded sourcebook* 2 ed. Thousand Oaks, CA: Sage Publications

Milgrom, P. and Roberts, J. (1992) *Economics, Organization and Management*. Prentice-Hall: NJ

Milhaupt, C. (1998) 'Property Rights in Firms', *Corporate Governance Today: The Sloan Project on Corporate Governance at Columbia Law School*, pp. 601-638. Columbia Law School: New York

Mirrlees, J. (1974) 'Notes on Welfare Economics, Information and Uncertainty', in Balch, M., McFadden, D. and Wu, S. (eds.), *Essay on Economic Behaviour under Uncertainty* North Holland, Amsterdam

Mirrlees, J. (1976) 'The Optimal Structure of Incentives and Authority within an Organization', *Bell Journal of Economics*, vol. 7, pp. 105-131

Moerland, P. (1995) 'Alternative disciplinary mechanisms in different corporate systems' *Journal of Economic Behaviour and Organization*, vol.26, pp.17-34.

Monks, R. and Minow, N. (1995) *Corporate Governance*. Blackwell Publishers: Oxford

Muller, F. (1996) 'National Stakeholders in the Global Contest for Corporate Investment', *European Journal of Industrial Relations*, vol. 2, no.3, pp.345-368

Murphy, K. (1999a) 'Performance Standards in Incentive Contracts', *Working Paper Series University of Southern California* <http://ssrn.com/abstract=189808>

Murphy, K. (1999b) 'Executive Compensation' in Ashenfelter, O. and Card, D. (eds.) *Handbook of Labor Economics*, pp. 1-89. Amsterdam: North-Holland

Murphy, K (2000) 'Performance Standards in Incentive Contracts' *Journal of Accounting and Economics*, vol. 30, pp. 245-278

Murphy, K (2002) 'Explaining Executive Compensation: Managerial Power vs. the Perceived Cost of Stock Options', *University Chicago Law Review*, vol. 69, pp. 247-863

New Bridge Street (1996), *Paying for performance: Long-term Incentives in the Top 500 Listed UK Companies*. New Bridge Street: London

Newman, K. and Nollen, S. (1997) 'Culture and Congruence: The Fit between Management Practices and Culture', *Journal of International Business Studies*, vol.27 no. 4, pp.753-779

North, D. and Thomas, R. (1973) *The Rise of the New World: A New Economic History*. Cambridge: Cambridge University Press

North, D. (1990) *Institutions, Institutional Change and Economic Performance*. Cambridge University Press: Cambridge

Noteboom B. (1999) 'Voice and Exit Forms of Corporate Control: Anglo-American, European and Japanese', *Journal of Economic Issues*, vol. 33, no. 4, pp. 845-860

OECD (1998) *Corporate Governance: Improving Competitiveness and Access to Capital in Global Markets*. Paris: Organization of Economic Cooperation and Development

Oldfield, C. (2000) 'Investors Want American-Style Pay', *Sunday Times*, 13 August 2000, sec. 3, p. 1

Oliver, C. (1992) 'The Antecedents of Deinstitutionalization', *Organization Studies*, vol.13, no. 4, pp.363-588 and pp. 563-588

Olson, M. (1982) *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidity*. Yale University Press: New Haven

Orange, M. and Renault, E. (1998) 'The French Owners Have Converted to Stockholders' Demands', *Le Monde*, April 23, 1998

Orr, D. (1999) Damm Yankees, *Forbes*, May 17 1999, pp. 206-207

O'Sullivan, M. (1999) 'Corporate Governance and Globalisation', *Working Paper*. INSEAD, France

Padoa-Schioppa, T. 'Self Vs. Public Discipline in the Financial Field', *Lecture by Member of the Executive Board of the European Central Bank at the London School of Economics*, 20 May 2002, London

Patton, M. (1990) *Institutions, Institutional Change and Economic Performance*, Cambridge University Press: Cambridge

Pauly, L. and Reich, S. (1997) 'National Structures and Multinational Corporate Behaviour: Enduring Differences in the Age of Globalization', *International Organisation*, vol. 51 no.1, pp 1-30

Peck, S. and Ruigrok, W. (2000) 'Hiding Behind the Flag? Prospects for Change in Corporate Governance', *European Management Journal*, vol.18, no. 4, pp. 420-430

Peck, S. and Ruigrok, W. (2002) 'Taking Care of Business: Corporate Governance and Executive Incentives in Germany', *paper presented at EURAM Conference in May 2000*, Stockholm

Peng, M. (2000) *Business Strategies in Transition Economies*, Sage Publications: London

Plender, J. (2000) 'Whirlwinds of Change', *Financial Times*, 4 February 2000, p.18

Pfeffer, J. and Salancik, C. (1978) *The External Control of Organizations*. Harper & Row: New York

Pistor, K. (1998) 'Co-determination in Germany: A Socio Political Model with Governance Externalities' in *Corporate Governance Today, The Sloan Project on Corporate Governance at Columbia Law School*, pp. 387-414, Columbia Law School: New York

Pistor, K. (2000) 'Patterns of Legal Change: Shareholder and Creditor Rights in Transition Economies', *Working Paper No. 49/2000*, European Bank for Reconstruction and Development

Pothukuchi, V., Damanpour, F., Choi, J., Chen, C. and Park, S. (2002), 'National and Organizational Culture Differences and International Joint Venture Performance', *Journal of International Studies*, vol.33, no.2, pp.243-265

Pries, L. (1997), 'Production Configurations and Production Concepts in Globally Operating Companies: Outline of a Comparative Analysis of Volkswagen, Mercedes Benz, and BMW in the USA, Mexico and Brazil' in Schmidt, G. and Trinczek (eds.) *Regulierung und Restrukturierung der Arbeit in den Spannungsfeldern von Globalisierung und Dezentralisierung, Arbeitspapiere II*, colloquium, 25-26 April, Erlangen, Germany

Prowse (1995) 'Corporate Governance in an International Perspective: A Survey of Corporate Control Mechanisms among Large Firms in the US, UK, Japan and Germany', *Financial Markets, Institutions and Instruments*, vol.1, no. 25

Ragin, C. (1992) 'Cases of "What is a Case?"' in Ragin, C. and Becker, H. (eds), *What Is a Case? Exploring the Foundations of Social Inquiry*. Cambridge University Press: Cambridge.

Ragin, C. (1997) 'Turning the Tables: How Case-Oriented Research Challenges Variable-Oriented Research' *Comparative Social Research*, No. 16

Rebérioux, A. (2002) 'European Style of Corporate Governance at the Crossroads: The Role of Worker Involvement', *Journal of Common Market Studies*, vol.40, no.1, pp. 111-134

Reitman, D. (1993) 'Stock Options and the Strategic Use of Managerial Incentives', *American Economic Review*, vol. 83, no. 3, pp. 513-24

Remenyi D., Williams, B., Money, A. and Swartz, E. (1998) *Doing Research in Business & Management: An Introduction to Process & Method*. Sage Publications Ltd: London

Rhagavan, A. and Steinmetz, G., 'Europe's Family Firms Become a Dying Breed Amid Succession Woes', *Wall Street Journal*, 31 March 2000 at A1

Roe, M. (2000) 'Political foundations for separating ownership from corporate control', *Stanford Law Review*, vol. 53, no. 3, pp. 539-606

Roe, M. (1993) 'Some Differences in Corporate Structure in German, Japan and the United States', *Yale Law Journal*, vol. 102, no. 8, pp. 1926-2000

Roe, M. (1994) *Strong Managers, Weak owners: The Political Roots of Corporate Finance*. Princeton University Press: Princeton

Roe, M. (1997) 'The Political Roots of American Corporate Finance', *Bank of American Journal of Applied Finance*, vol. 9, no.4, pp. 8-22

Rosen, S. (1992) 'Contracts and the Market for Executives' in Werin, L. and Wijkander, H. (eds.), *Contract Economics* Blackwell: Oxford

Rottenburg, R. (1996) 'When Organization Travels: On Intercultural Translation' in Czarniawska, B. and Sevón, G. (eds.) *Translating Organisational Change*. Walter de Gruyter: New York

Ruigrok, W. and van Tulder, R. (1995) *The Logic of International Restructuring*, Routledge: London:

Schneider-Lénne, E. (1992) 'Corporate control in Germany', *Oxford Review of Economic Policy*, vol. 8, no. 3, pp. 11-23

Scott, J. (1985) *Corporations, classes and capitalism*, London: Hutchinson

Scott, W. (1987) 'Adolescence of Institutional Theory', *Administrative Science Quarterly*, vol. 32, pp. 493-511

Scott, W. (1998) *Organizations: Rational, Natural and Open Systems* Prentice-Hall: New Jersey

Scott, W. (2001) *Institutions and Organizations*. Sage Publications: London

Selznick, P. (1957) *Leadership in Organization*. Harper and Row: New York

Selznick, P. (1996) 'Institutionalism 'Old' and 'New'', *Administrative Science Quarterly*, vol. 41, no. 3, pp.270-277

Seo, M. and Creed, W. (2002) 'Institutional Contradictions, Praxis, and Institutional Change: a Dialectical Perspective', *Academy of Management Review*, vol. 27 no. 2, pp. 222-247.

Shepherd, W. (1989) 'Public Enterprise: Criteria and Cases' in De Jong, H. (ed.): *The Structure of European Industry*, pp.355-388. Dordrecht: Kluwer Academic.

Shleifer, A. and Vishny, R. (1995) 'A Survey of Corporate Governance', *Discussion Paper No. 1741*, Harvard Institute of Economic Research

Shleifer, A. and Vishny, R. (1997) 'A survey of Corporate Governance', *Journal of Finance*, vol. 52, no. 2, pp. 737-783

Smith, A. (1776) *The Wealth of Nations*, Random House: New York

Soskice, D. (1998) 'Divergent Production Regimes: Coordinated and Uncoordinated Market Economies in the 1980s and 1990s' in Kitschelt, H., Lange, P., Marks, G., and Stephens, J. (eds.), *Continuity and Change in Contemporary Capitalism*, pp.101-134. Cambridge University Press: New York

Sternberg, E. (1998) *Corporate Governance: Accountability in the Marketplace*, The Institute of Economic Affairs: London

Stinchcombe, A. (1965) 'Social Structure in Organizations' in March, J.G. (ed) *Handbook of Organisations*, pp. 142-193. Rand McNally: Chicago

Stokes, B. (2000) 'The M&A Game's Global Field', *National Journal*, July 15, p. 2290

Streeck, W. (1991) 'On the Institutional Conditions of Diversified Quality Production', in Matzner, E. and Streeck, W. (eds.), pp. 21-61. *Beyond Keynesianism: The Socio-*

Economics of Production and Full Employment. Edward Elgar Publishing: Hants, England

Streeck, W. (2001) 'Lösung der Beschäftigungsprobleme mit Hilfe eines Niedriglohnsektors', *Tagesspiegel*, 6 December

Tagliabue, J. (1998) 'Compliments of US Investors: New Activism Shakes Europe's Markets', *New York Times*, 15 April 1998, p. D1

Tagliabue, J. (2000) 'Resisting Those Ugly Americans; Contempt in France for US Funds and Investors,' *New York Times*, 9 January 2000, sec.3, p.1 col.5

Tehrani, H. and Waegeli, J. (1985) 'Market Reaction to Short-term Executive Compensation Plan Adoption', *Journal of Accounting and Economics*, vol.7, pp.134-144

Thomas, D. and Au, K. (2003) 'The effect of Cultural Differences on Behavioral Responses to Low Job Satisfaction', *Journal of International Business Studies*, vol.34, no.1, pp.40-52

Thomsen, S. and Pedersen, T. (1996) 'Nationality and Ownership Structures: The 100 Largest Companies in Six European Nations', *Management International Review*, vol. 36, pp.149-166

Tolbert, P. (1985) 'Resource Dependence and Institutional Environments: Sources of Administrative Structure in Institutions of Higher Education', *Administrative Science Quarterly*, vol. 30, pp.1-13

Tosi, H., Werner, S., Katz, J. and Gomez-Meija, L. (2000) 'How Much Does Performance Matter? A Meta-Analysis of CEO Pay Studies', *Journal of Management*, vol. 26, no. 2, pp. 301-339

Towers Perrin (2002) *Worldwide Total Remuneration 2001/2002*, http://www.towers.com/towers_publications

Trochim, W. (1989) 'Outcome Pattern-matching and Program Theory', *Evaluation and Program Planning*, vol. 12, no.4, pp. 355

Useem, M. (1984) *The Inner Circle: Large Corporations and the Rise of Business Political Activity in the US and U.K.* Oxford University Press: New York

Useem, M. (1996) *Investor Capitalism: How Money Managers are Changing the Face of Corporate America* Basic Books: New York

van der Elst, C. (2000) 'The Equity Markets, Ownership Structures and Control: Towards an International Harmonization?' *Financial Law Institute Working Paper*, Ghent University, Belgium

van der Vliert, E. (2001) 'Thermoclimate, Culture, and Povert as Country-level Roots of Workers' Wages', *Journal of International Business Studies*, vol.32, no.2, pp.369-377

Vitols, S. (2001) 'The Construction of German corporate governance: Reassessing the role of capital market', *Working paper*, Wissenschaftszentrum Berlin für Sozialforschung

Wagstyl, (1996) 'Crumbs from the Table' *Financial Times*, 25 September 1996, p. 27

Waples, J. (2000) 'Boardroom Bonanza', *Sunday Times*, Business, 16 July 2000, p. 9

Warner, J. (1985) 'Stock Market Reaction to Management Incentive Plan Adoption', *Journal of Accounting and Economics*, vol.7 pp.145-149

Webb, S. (1997) 'Calpers Sees New Targets Overseas', *Wall Street Journal*, 20 October 1997 at C1

Wehling, M. (2000) 'Mitbestimmung in virtuellen Unternehmen?' *Industrielle Unternehmungen*, 7. Jg. H.2, pp. 131-156

Weimer, J. (1995) 'Corporate financial goals', *PhD thesis*, Enschede: University of Twente Press.

Weimer, J. and Pape, J. (1995) 'A Taxonomy of Systems of Corporate Governance', *Corporate Governance Theory Papers*, vol. 7, no. 2, pp. 152-166

Westphal, J. and Zajac, E. (1998) 'The Symbolic Management of Shareholders: Corporate Governance Reforms and Shareholder Reactions', *Administrative Science Quarterly Bulletin*, vol. 43, no. 1, pp. 127-153

Whitley, R. (1992) *European Business Systems in Firms and Markets in their National Contexts*. Sage Publications: London

Whitley, R. (1999) 'How and why are International Firms Different', *Paper presented to 15th EGOS Colloquium*, University of Warwick, 4-6th July

Williams, C. (2000) 'As in Mannesmann Deal, Globalization Forcing Germany inc. Out of Business', *Los Angeles Times*, 14 February 2000, p.1. ec.3

Williamson, O.E. (2000) 'The New Institutional Economics: Taking Stock, Looking Ahead', *Journal of Economic Literature*, vol. 38, no. 3, pp. 595-613

Williamson, J. (1996) 'Globalization, Convergence, History', *Journal of Economic History*, vol.56, no.2. pp. 277-135

Wiseman, R., McNamara, G. and Devers, C. (2001) 'CEO Stock Option Wealth Effects on Firm Risk and Risk Taking', *Department of Management Working Paper 3/01*, Michigan State University, East Lansing MI

Witschey Jr., D. (2003) 'Proposed SEC Rules would Shift Power from Managers to Shareholders', *Business Journal*, 30 January 2004

Wright, P. and Kroll, M. (2002) 'Executive Discretion and Corporate Performance as Determinants of CEO Compensation, Contingent on External Monitoring Activities', *Journal of Management and Governance*, vol. 6, pp. 189-214

Yablon and Hill (2000) 'Timing Corporate Disclosures to Maximise Performance-Based Remuneration: A Case of Misaligned Incentives?' *Wake Forest Law Review*, vol. 83, pp. 84-85

Yermack, D. (1997) 'Good Timing: CEO Stock Option Awards and Company News Announcements', *Journal of Finance*, vol. LII, no. 2, pp. 449-476

Yin, R (1981) 'The Case-Study as a Serious Research Strategy', *Knowledge: Creation, Diffusion, Utilisation*, vol. 3, pp 97-114

Yin, R. (1993) *Applications of Case-Study Research*. Sage Publications: Newbury Park, CA

Yin, R. (1994) *Case-Study Research: Design and Methods (2nd ed.)*. Sage Publications: Newbury Park, CA

Ziegler, D. (1997) 'Zur Struktur der Aufsichtsräte in der deutschen Industrie während der Zwischenkriegszeit. Eine Querschnittsanalyse für das Jahr 1927' *Arbeitspapier Nr. 3/1997 des Arbeitskreises für Unternehmensgeschichte*. Frankfurt: Gesellschaft für Unternehmensgeschichte.

Zukin, S. and DiMaggio P. (eds.) (1990) *Structures of Capital* Cambridge University Press: Cambridge

Appendix A

The following is the database containing important and relevant information about the individual German, US and UK companies' main share based reward schemes as described by Chapter 7 in Section 7.3.

Deutsche Bank (Germany)

FYE 31 December 2000	
Main executive stock option scheme:	Global Equity Plan 1998: Interest paying convertible bonds
Number of participants:	2,498
Level of participants involved:	Board of management, senior executives of Deutsche Bank and affiliated companies, regional managers and head of services in main office.
Approximate number of total employees:	91,168
Percentage number of senior executives selected for the scheme	2.74 %
Maximum number of shares underlying awarded options under the scheme during the year:	6,968,200
Total number of shares:	3,029,604,034
Percentage of shares underlying awarded options to total share capital	0.230 per cent
Performance condition(s) stated:	Average adjusted pre-tax earnings per share for 3 years preceding the exercise period to exceed average adjusted pre-tax earnings per share for 3 years preceding the issuance of the bonds.
Minimum qualification period	3 years.

JP Morgan Chase (USA)

FYE 31 December 2000	
Main executive stock option scheme:	Growth Incentive Program – Stock Options
Number of participants:	5
Level of participants involved:	Executive Officers
Approximate number of total employees:	100,000
Percentage number of senior executives selected for the scheme	0.005 %
Maximum number of shares underlying awarded options under the scheme during the year:	4,392,817
Total number of shares:	1,940,109,081
Percentage of shares underlying awarded options to total share capital	0.226 %
Performance condition(s) stated:	Cumulative EPS targets of \$8.50 and \$9.0 are achieved for the next one-year and two years.
Minimum qualification period	3 years.

HSBC Holdings (UK)

FYE 31 December 2000	
Main executive stock option scheme:	2000 Restricted Share Plan – Conditional Share Award
Number of participants:	264
Level of participants involved:	Executive directors, group general managers, and other senior executives
Approximate number of total employees:	171,049
Percentage number of senior executives selected for the scheme	0.1543 %
Maximum number of shares underlying awarded options under the scheme during the year:	2,085,000
Total number of shares:	9,268,200,364
Percentage of shares underlying awarded options to total share capital	0.023 %
Performance condition(s) stated:	Attainment of a predetermined TSR target, against the mean of a selected benchmark after a 3 years performance period
Minimum qualification period	3 years.

Deutsche Telekom (Germany)

FYE 31 December 2000	
Main executive stock option scheme:	Stock Option Plan 2000
Number of participants:	350
Level of participants involved:	Managing directors, managers below board level and managers of domestic and foreign group company
Approximate number of total employees:	25,495
Percentage number of senior executives selected for the scheme	1.373 %
Maximum number of shares underlying awarded options under the scheme during the year:	1,023,923
Total number of shares:	3,029,604,034
Percentage of shares underlying awarded options to total share capital	0.038 %
Performance condition(s) stated:	Shares (adjusted for dividends, pre-emptive rights, and other special rights) to outperform the Euro Stoxx 50 Total Return Index
Minimum qualification period	2 years.

WorldCom (USA)

FYE 31 December 2000	
Main executive stock option scheme:	1999 Stock Option Plan
Number of participants:	4
Level of participants involved:	Executive officers
Approximate number of total employees:	66,667
Percentage number of senior executives selected for the scheme	0.006 %
Maximum number of shares underlying awarded options under the scheme during the year:	3,640,000
Total number of shares:	2,867,664,559
Percentage of shares underlying awarded options to total share capital	0.1269 %
Performance condition(s) stated:	None
Minimum qualification period	1 year

BT (UK)

FYE 31 December 2000	
Main executive stock option scheme:	Incentive Share Scheme – Conditional Share Award
Number of participants:	2,500
Level of participants involved:	Executive directors, group general managers, and other senior executives
Approximate number of total employees:	104,700
Percentage number of senior executives selected for the scheme	2.3878 %
Maximum number of shares underlying awarded options under the scheme during the year:	9.7 million
Total number of shares:	6,507,104,882
Percentage of shares underlying awarded options to total share capital	0.149 %
Performance condition(s) stated:	TSR has to be at the upper quartile of the top 25 company ranked on the FTSE 100 index at the end of the three years for all shares to vest. The proportion of shares to vest reduces on a straight line basis according to its TSR position with only 25% vesting at the 50 th position
Minimum qualification period	3 years

MG Technologies (Germany)

FYE 31 December 2000	
Main executive stock option scheme:	Modified Stock Option Plan 1998
Number of participants:	180
Level of participants involved:	Executive directors and other group executives
Approximate number of total employees:	38,145
Percentage number of senior executives selected for the scheme	0.4719%
Maximum number of shares underlying awarded options under the scheme during the year:	1,410,000
Total number of shares:	492,245,451
Percentage of shares underlying awarded options to total share capital	0.2864%
Performance condition(s) stated:	Average EPS in the 3 fiscal years preceding to stock options exercise to exceed the average EPS in the 3 fiscal years prior to issuance of the options
Minimum qualification period	3 years

Textron (USA)

FYE 31 December 2000	
Main executive stock option scheme:	1999 Long Term Incentive Plan – Stock Options
Number of participants:	1019
Level of participants involved:	Executive directors, key executives and other employees
Approximate number of total employees:	71,000
Percentage number of senior executives selected for the scheme	1.4352 %
Maximum number of shares underlying awarded options under the scheme during the year:	4,618,000
Total number of shares:	146,150,000
Percentage of shares underlying awarded options to total share capital	3.1598 %
Performance condition(s) stated:	None
Minimum qualification period	1 year

Johnson Matthey (UK)

FYE 31 December 2000	
Main executive stock option scheme:	Long Term Incentive Plan 1998 – Conditional Share Award
Number of participants:	1650
Level of participants involved:	Executive directors and other senior executives
Approximate number of total employees:	6,996
Percentage number of senior executives selected for the scheme	23.5849 %
Maximum number of shares underlying awarded options under the scheme during the year:	328,962
Total number of shares:	221,082,018
Percentage of shares underlying awarded options to total share capital	0.148 %
Performance condition(s) stated:	TSR performance position compared to the FTSE mid-250 index over a 3-year performance period with pro-rata allocations being made. No shares will be released at below 50 th percentile performance. EPS also to increase to at least equal to the annual increase in UK RPI + 2 % per annum over the period
Minimum qualification period	3 years

SAP (Germany)

FYE 31 December 2000	
Main executive stock option scheme:	Long Term Incentive 2000 Plan: Convertible bonds and stock options
Number of participants:	Unknown
Level of participants involved:	Executive directors, senior managers and top performers
Approximate number of total employees:	28,210
Percentage number of senior executives selected for the scheme	Unknown
Maximum number of shares underlying awarded options under the scheme during the year:	3,145,000 (preference shares)
Total number of shares:	131.7 million (preference shares)
Percentage of shares underlying awarded options to total share capital	2.388 %
Performance condition(s) stated:	Preference shares to outperform the Goldman Sachs Software Index (GSTI) immediately for period preceding the grant date
Minimum qualification period	2 years

AOL (USA)

FYE 31 December 2000	
Main executive stock option scheme:	AOL Stock Option Award
Number of participants:	3
Level of participants involved:	Executive officers
Approximate number of total employees:	18,000
Percentage number of senior executives selected for the scheme	0.0167%
Maximum number of shares underlying awarded options under the scheme during the year:	6,500,000
Total number of shares:	2,378.6 million
Percentage of shares underlying awarded options to total share capital	0.273 %
Performance condition(s) stated:	None
Minimum qualification period	1 year

Reuters (UK)

FYE 31 December 2000	
Main executive stock option scheme:	1993 Long Term Incentive Share Plan – Restricted Share Award
Number of participants:	9
Level of participants involved:	Executive officers and group executive directors
Approximate number of total employees:	16,265
Percentage number of senior executives selected for the scheme	0.0533 %
Maximum number of shares underlying awarded options under the scheme during the year:	303,324
Total number of shares:	1,429,100
Percentage of shares underlying awarded options to total share capital	0.021 %
Performance condition(s) stated:	Company's TSR ranking position in the FTSE 100 index based on total return to shareholders over a 3-5 year period
Minimum qualification period	5 years

Schwarz Pharma (Germany)

FYE 31 December 2000	
Main executive stock option scheme:	Stock Option Program 2000: Interest bearing fixed rate convertible debentures
Number of participants:	500
Level of participants involved:	Executive officers and other senior executives
Approximate number of total employees:	407,166
Percentage number of senior executives selected for the scheme	0.1228 per cent
Maximum number of shares underlying awarded options under the scheme during the year:	448,000
Total number of shares:	21,993,000
Percentage of shares underlying awarded options to total share capital	2.037%
Performance condition(s) stated:	None
Minimum qualification period	2 years

Endo Pharma (USA)

FYE 31 December 2000	
Main executive stock option scheme:	1997 Stock Option Plans
Number of participants:	60
Level of participants involved:	Executive directors, and selected senior executives
Approximate number of total employees:	30,000
Percentage number of senior executives selected for the scheme	0.200 %
Maximum number of shares underlying awarded options under the scheme during the year:	8,471,259
Total number of shares:	79,454,000
Percentage of shares underlying awarded options to total share capital	10.662 %
Performance condition(s) stated:	None
Minimum qualification period	None

Cell Tech (UK)

FYE 31 December 2000	
Main executive stock option scheme:	Executive Share Option Scheme 1999
Number of participants:	508
Level of participants involved:	Executive officers and senior managers
Approximate number of total employees:	2,029
Percentage number of senior executives selected for the scheme	25.037 per cent
Maximum number of shares underlying awarded options under the scheme during the year:	4,682,078
Total number of shares:	273,842,647
Percentage of shares underlying awarded options to total share capital	1.710 %
Performance condition(s) stated:	Share price to outperform the FTSE Mid 250 index by a margin over at least a 3 year period
Minimum qualification period	3 years

SGL Carbon (Germany)

FYE 31 December 2000	
Main executive stock option scheme:	Stock Option Plan
Number of participants:	154
Level of participants involved:	Executive officers, senior executives, executive officers of the group and senior executives of group companies
Approximate number of total employees:	8,084
Percentage number of senior executives selected for the scheme	1.905 %
Maximum number of shares underlying awarded options under the scheme during the year:	187,500
Total number of shares:	21,404,000
Percentage of shares underlying awarded options to total share capital	0.876 %
Performance condition(s) stated:	Share price and reinvested dividend to exceed exercise price by at least 15 %
Minimum qualification period	1 year

Crane (USA)

FYE 31 December 2000	
Main executive stock option scheme:	Stock Option Plan 1998
Number of participants:	199
Level of participants involved:	Executive officers and other senior executives
Approximate number of total employees:	9,405
Percentage number of senior executives selected for the scheme	2.116 %
Maximum number of shares underlying awarded options under the scheme during the year:	1,014,220
Total number of shares:	60,198,426
Percentage of shares underlying awarded options to total share capital	1.685 %
Performance condition(s) stated:	None
Minimum qualification period	1 year

TT Electronics (UK)

FYE 31 December 2000	
Main executive stock option scheme:	Executive Share Option Scheme 1996
Number of participants:	100
Level of participants involved:	Executive officers and other senior executives
Approximate number of total employees:	8,295
Percentage number of senior executives selected for the scheme	0.1206 %
Maximum number of shares underlying awarded options under the scheme during the year:	725,545
Total number of shares:	154,798,103
Percentage of shares underlying awarded options to total share capital	0.468 %
Performance condition(s) stated:	Group's EPS to increase at a rate greater than 2% above any increase in the all items index of retail prices after 3 years
Minimum qualification period	3 years

Vossloh (Germany)

FYE 31 December 2000	
Main executive stock option scheme:	Long Term Incentive Program 1998: Stock purchase to receive bonus options
Number of participants:	45
Level of participants involved:	Executive board members and other senior executives
Approximate number of total employees:	4,839
Percentage number of senior executives selected for the scheme	0.9300 %
Maximum number of shares underlying awarded options under the scheme during the year:	413,306
Total number of shares:	14,400,000
Percentage of shares underlying awarded options to total share capital	2.870%
Performance condition(s) stated:	Share price to outperform the M-DAX Index
Minimum qualification period	3 years

Wabtec (USA)

FYE 31 December 2000	
Main executive stock option scheme:	2000 Stock Incentive Plan: Stock Options
Number of participants:	5
Level of participants involved:	Executive officers
Approximate number of total employees:	4,386
Percentage number of senior executives selected for the scheme	0.1140%
Maximum number of shares underlying awarded options under the scheme during the year:	755,000
Total number of shares:	42,922,780
Percentage of shares underlying awarded options to total share capital	1.759%
Performance condition(s) stated:	None
Minimum qualification period	None

Henlys (UK)

FYE 31 December 2000	
Main executive stock option scheme:	Long Term Incentive Plan – Shares
Number of participants:	3
Level of participants involved:	Executive officers
Approximate number of total employees:	2,864
Percentage number of senior executives selected for the scheme	0.1746%
Maximum number of shares underlying awarded options under the scheme during the year:	224,168
Total number of shares:	76,144,063
Percentage of shares underlying awarded options to total share capital	0.294%
Performance condition(s) stated:	None
Minimum qualification period	3 years

Appendix B

The following is the database containing important and relevant information about the individual German, US and UK companies' main share based reward schemes as described in Section 7.3 and used by Section 7.3.2

German / US Companies

Deutsche Bank / JP Morgan Chase		
	Deutsche Bank (German)	JP Morgan Chase (US)
1. Percentage of employees involved	2.740 %	0.005 %
2. Percentage of maximum underlying shares to total number of shares outstanding	0.230 %	0.226 %
3. Number of performance conditions	1	1
4. Performance conditions	Average adjusted pre-tax EPS to exceed average pre tax EPS of previous 3 years	Cumulative EPS for next two years to achieve targets of \$8.50 and \$9.50
5. Minimum qualification period	3 years	2 years

Deutsche Telekom / WorldCom		
	Deutsche Telekom (German)	WorldCom (US)
1. Percentage of employees involved	1.373 %	0.006 %
2. Percentage of maximum underlying shares to total number of shares outstanding	0.033 %	0.126 %
3. Number of performance conditions	1	0
4. Performance conditions	Share price to outperform the Euro Stoxx 50	None
5. Minimum qualification period	2 years	1 year

MG Technologies/Textron

	MG Tech (German)	Textron (US)
1. Percentage of employees involved	0.472 %	1.435 %
2. Percentage of maximum underlying shares to total number of shares outstanding	0.2864 %	3.159 %
3. Number of performance conditions	1	0
4. Performance conditions	Average EPS growth against historical average EPS growth	None
5. Minimum qualification period	3 years	1 year

SAP / AOL

	SAP (German)	AOL (US)
1. Percentage of employees involved	Unknown	0.017 %
2. Percentage of maximum underlying shares to total number of shares outstanding	0.122 %	0.273 %
3. Number of performance conditions	1	0
4. Performance conditions	Stock price to outperform the Goldman Sachs Software Index	None
5. Minimum qualification period	2 years	1 year

Schwarz Pharma / Endo Pharma

	Schwarz Pharma (German)	Endo Pharma (US)
1. Percentage of employees involved	0.123 %	0.200 %
2. Percentage of maximum underlying shares to total number of shares outstanding	2.037 %	10.662 %
3. Number of performance conditions	0	0
4. Performance conditions	None	None
5. Minimum qualification period	2 years	None

SGL Carbon / Crane

	SGL Carbon (German)	Crane (US)
1. Percentage of employees involved	1.905 %	2.116 %
2. Percentage of maximum underlying shares to total number of shares outstanding	0.876 %	0.468 %
3. Number of performance conditions	1	0
4. Performance conditions	Share price and reinvested dividend to exceed exercise price by at least 15%	None
5. Minimum qualification period	2 years	1 year

Vossloh / Wabtec

	Vossloh (German)	Wabtec (US)
1. Percentage of employees involved	0.930 %	0.114 %
2. Percentage of maximum underlying shares to total number of shares outstanding	2.870 %	1.759 %
3. Number of performance conditions	1	0
4. Performance conditions	Share price to outperform the M-DAX	None
5. Minimum qualification period	3 years	Discretionary

German/UK Companies

Deutsche Bank / HSBC Holdings Holdings

	Deutsche Bank (German)	HSBC (UK)
1. Percentage of employees involved	2.740 %	0.154%
2. Percentage of maximum underlying shares to total number of shares outstanding	0.230 %	0.022 %
3. Number of performance conditions	1	1
4. Performance conditions	Average adjusted pre-tax EPS to exceed average pre tax EPS of previous 3 years	Attainment of predetermined TSR targets, against the mean of a selected benchmark after a 3 years performance period
5. Minimum qualification period	3 years	5 years

Deutsche Telekom / BT

	Deutsche Telekom (German)	BT (UK)
1. Percentage of employees involved	1.373 %	0.006 %
2. Percentage of maximum underlying shares to total number of shares outstanding	0.033 %	0.149 %
3. Number of performance conditions	1	1
4. Performance conditions	Share price to outperform the Euro Stoxx 50	TSR to be within top 25-52 companies ranked on the FTSE 100 index at the end of three years
5. Minimum qualification period	2 years	3 years

MG Technologies / Johnson Matthey

	MG Tech (German)	Johnson Matthey (UK)
1. Percentage of employees involved	0.472 %	23.585 %
2. Percentage of maximum underlying shares to total number of shares outstanding	0.2864 %	0.148 %
3. Number of performance conditions	1	2
4. Performance conditions	Average EPS growth against historical average EPS growth	TSR performance position compared to FTSE mid 250 index over 3 years. EPSS growth also to exceed UK RPI + 2% per annum
5. Minimum qualification period	3 years	3 years

SAP / Reuters

	SAP (German)	Reuters (UK)
1. Percentage of employees involved	Unknown	0.055 %
2. Percentage of maximum underlying shares to total number of shares outstanding	0.122 %	0.0212 %
3. Number of performance conditions	1	1
4. Performance conditions	Stock price to outperform the Goldman Sachs Software Index	Total return to shareholders over 3-5 years compared to companies in FTSE 100 index
5. Minimum qualification period	2 years	3 years

Schwarz Pharma / Cell Tech

	Schwarz Pharma (German)	Endo Pharma (US)
1. Percentage of employees involved	0.123 %	25.037 %
2. Percentage of maximum underlying shares to total number of shares outstanding	2.037 %	1.7098 %
3. Number of performance conditions	0	1
4. Performance conditions	None	Share price outperforming the FTSE Mid 250 Index by a margin over a 3 year period
5. Minimum qualification period	2 years	3 years

SGL Carbon / TT Electronics

	SGL Carbon (German)	TT Electronics (UK)
1. Percentage of employees involved	1.905 %	0.121 %
2. Percentage of maximum underlying shares to total number of shares outstanding	0.876 %	0.469 %
3. Number of performance conditions	1	1
4. Performance conditions	Share price and reinvested dividend to exceed exercise price by at least 15%	EPS to increase at a rate greater than 2 % above any increase in the all terms index of retail prices after 3 years
5. Minimum qualification period	2 years	3 years

Vossloh / Henlys		
	Vossloh (German)	Henlys (UK)
1. Percentage of employees involved	0.930 %	0.175 %
2. Percentage of maximum underlying shares to total number of shares outstanding	2.870 %	0.294 %
3. Number of performance conditions	1	0
4. Performance conditions	Share price to outperform the M-DAX	None
5. Minimum qualification period	3 years	3 years